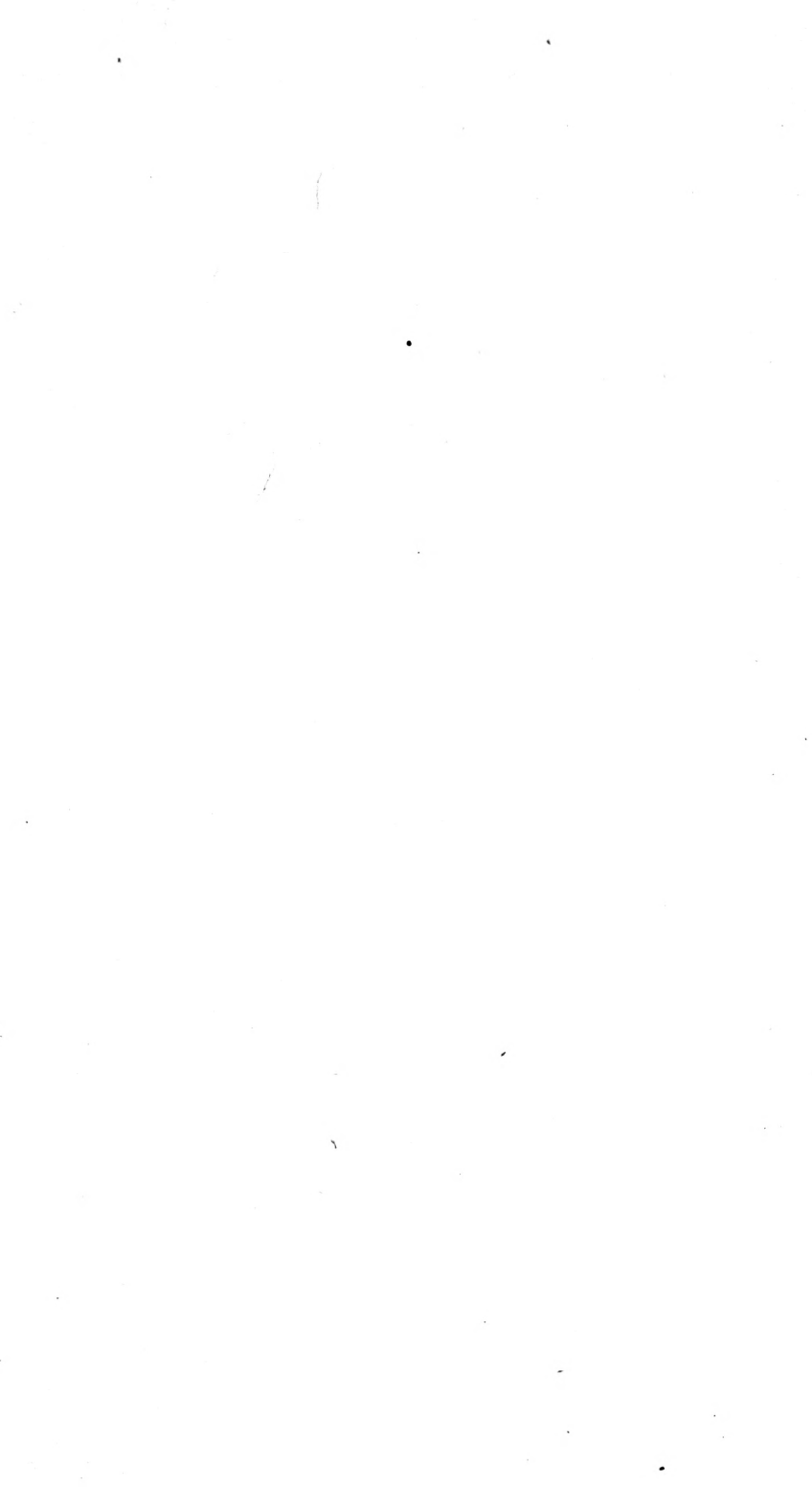


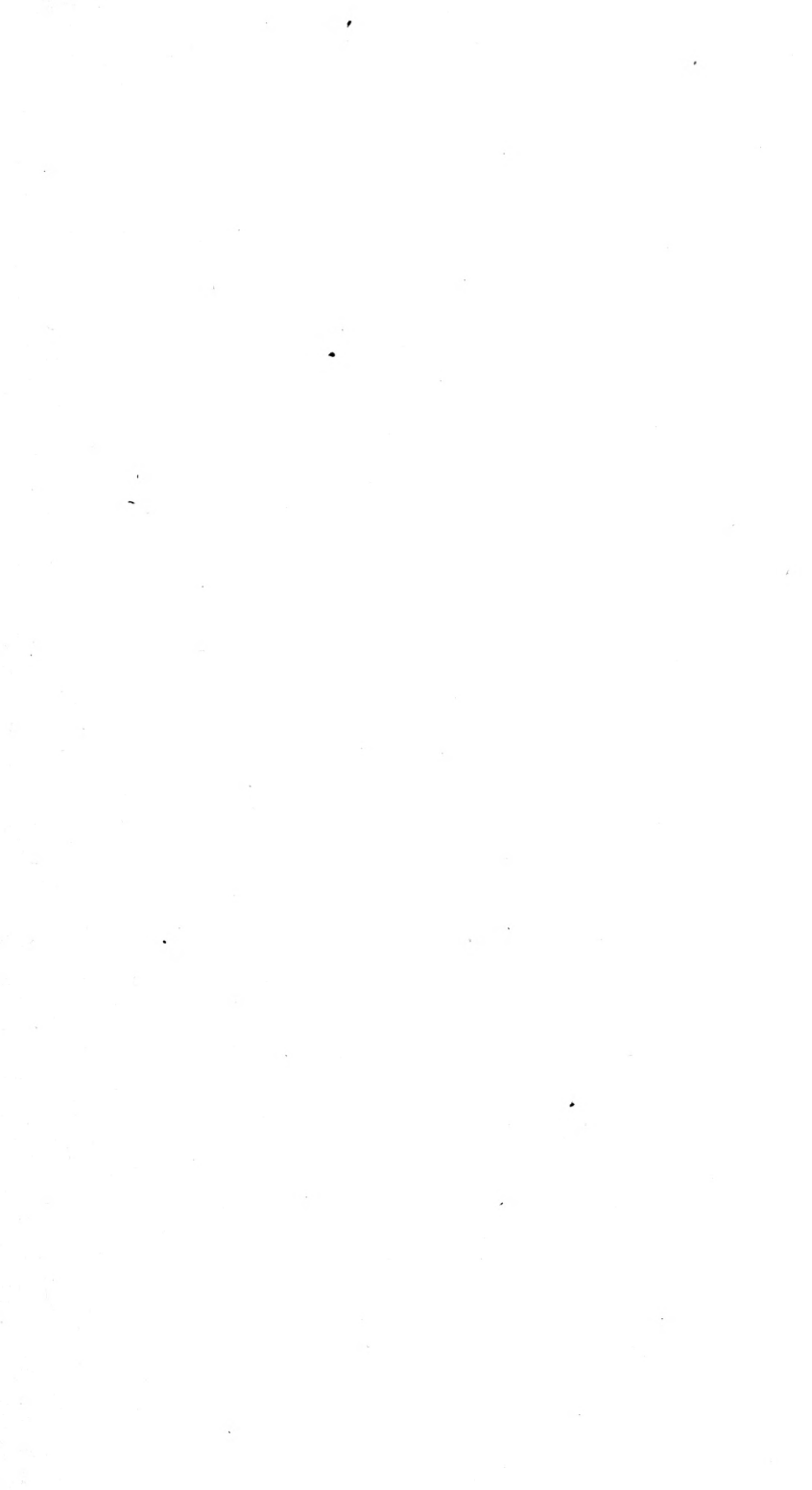
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**RESEARCHES ON AMERICA;**

BEING

AN ATTEMPT TO SETTLE SOME POINTS

RELATIVE TO THE

**ABORIGINES OF AMERICA, &c.**

=====  
*BY JAMES H. McCULLOH, JUN. M. D.*  
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**Baltimore :**

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TO THE

ASIATICK SOCIETY OF BENGAL.

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**T**HE author of the following sheets begs leave to dedicate the first fruits of literary labours and early life to the very respectable society of gentlemen, whose careful and extensive researches into the history and monuments of the eldest nations known on earth, have given him so much satisfaction and such assistance in the solitary path he has taken. But placed at the distance of half the globe, and under several disadvantages, his obscure offering may never reach them. It is his hope, that others pursuing the same course of inquiry and disquisition, as well as the scientific world at large, may pay them a worthier tribute; that they may enjoy the high gratification of having largely contributed to the stock of hu-

## DEDICATION.

man knowledge, and drawn from the rubbish of ages, memorials and proofs illustrative of human existence, connexion and progress, which at once bid, as it were, light to be on the chaos of periods past, and shine to those to come. The philosopher, the historian, and naturalist, must subscribe, with the present author, their grateful acknowledgments to the distinguished association, whose intelligence and labours have effected such important, pleasing and impressive discoveries.

BALTIMORE, Oct. 15, 1817.

## PREFACE.

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As the first edition of this work was printed with many inaccuracies, and under several disadvantages, it appears proper that the author should here state, the causes of the defects in that impression.

The principal part of this essay was written previous to the year 1813; under the disadvantages of youth, occupation, and a limited library. The war that followed put a complete stop to further study; and the author holding a commission in the army, was ordered on to the frontiers; while thus absent, he permitted his imperfectly arranged notes, and crude materials of an essay to be printed; and which he had not seen for nearly two years.—Under these unfavourable auspices, was the first edition printed, containing many errors, many inadvertencies, and in some instances, appear-

ing to express opinions the very opposite to what was intended.

A year of greater leisure, has, however, enabled the author to revise, correct, and add certain facts and considerations, esteemed important to his first work, and to endeavour to put it in a more systematick shape.—All these circumstances, however, can scarcely justify the quickness of a second edition, but as the author has adopted a plan of life incompatible with reading, or study; and which, if it ever admits of literary leisure, will be after the lapse of many years; he is, therefore, induced to think himself better qualified to print this essay at the present time, when his mind is impressed with the consideration of the subject, than is probable would be the case at any future period.

Influenced by these views, and with the hope that the principal part of this essay may be deserving the reflection and attention of the philosopher, the antiquarian, and the naturalist, the author offers this corrected edition, and retires.

So much has been written on the origin of the American Indians, that it is scarcely possible for an opinion to be now given, which would not, in some manner or other,

have coincidences with some preceding hypothesis. This has often been experienced by the author of this essay ; and sometimes with chagrin, for, after believing himself the original framer of certain opinions, he has afterwards found, that the same idea had been promulgated many years ago ; and perhaps there may be other opinions, advanced in this work, that are similarly situated. However, as far as possible, I have done justice to every writer I have met with.

The common method of tracing a nation or people by means of etymological inquiries, appears defective; and, in thus venturing to dissent from great authorities, it may be proper that I should justify myself, for not making any use of etymology in this essay.

It cannot be doubted, if inquiries could be made by a philologist *himself*, among the different nations of the globe, that such a procedure would be highly important ;but this plan cannot or has not been followed. Navigators and curious travellers, have made vocabularies of the languages of the different people they may have seen or visited : this has been done by the English, French, Germans, Dutch, Spanish, Portuguese, &c. &c.—A writer, in making etymological i

quiries, then takes the vocabularies formed by the travellers of different nations ; and undertakes to compare them as they are wrote, unconscious of the confusion that has been made by the collectors, in labials,—dentals,—or of words or sounds, compounded of consonants, and such that an European cannot pronounce.

This source of error which the etymologist is liable to, cannot be guarded against but by a critical knowledge of many European languages. For example—the French have no *W* in their alphabet ;—now, had *Dr. Barton* been aware of this, he would not have made the mistake which he has done in his notes on *Pinkerton's Geography* ; where he says ;—The Lake known in Canada by the Anglo-Americans, by the name of *Winnepeck*, is called by the French *Ouinipeque* ; now, though these words are thus differently written, they are pronounced exactly alike ; for the French, to imitate our *W*, have to use the three letters *o, u, i* ;—which answers the purpose effectually ;—thus, the French affirmative *yes*, is wrote *oui* ; but is pronounced *We*

Again ;—where a language is but imperfectly understood, collectors of words often

mistake—by giving the adjective along with the noun ; thus—a stone or rock being presented to a savage for the name ; he may answer, it is true, that it is a rock or stone,—but there are much greater chances for his calling it,—a holy stone, if he made his gods of it,—he might say it was, hatchet stone, or spear stone, if he made those weapons of it ; and twenty different ways of answering the question, and none the direct one :—and this no doubt is the cause why savages are stated to have such long words.

And savages, when asked a question, also may misunderstand the nature of it. Captain Cook asked a New-Zealander, the name of one of the neighbouring islands, as is probably by pointing to it ; the native replied, *Tavi Poenamono*,—which means, Jade, a stone of which their hatchets were made, and a Lake ; and by those two words he signified, that there was a lake in that island whence they procured jade :—but captain Cook understood him that the island was known by that name ; this mistake he afterwards discovered and acknowledged, in the account of his Third Voyage.

Another source of error in forming vocabularies is from having a defective ear ;—

and this has frequently been asserted to have been the case of captain Cook.—Baron Humbolt observes; “ We cannot conceive by what misconception, the illustrious Cook could convert the name of Yucuatl into Nootka ;—this last word being unknown to the natives of the country, and having no analogy to any of the words of their language excepting Noutchi ;—which signifies a mountain.”

[*See Polit. Essay, II. 256.*]

These impediments to the formation of vocabularies, affect the remaining labours of the etymologist ; and, as might be well expected,—that setting out with wrong premises, their conclusions must be either false or imperfect.

I shall say nothing of the confusion introduced by etymologists themselves, such as substituting one consonant, or vowel, for another ; by which means any thing may be proved or disproved according to their own hypothesis.

The incapacity of etymology to shew the origin of the American Indians, cannot be doubted, when we examine THE NEW VIEWS of Dr. Barton ; and to which I refer. This ingenious physician has taken fifty-four

words of the most common use ; such as father, mother, hand, head, &c. and collated the American Indian with no less than eighty different languages or dialects of Asia and Europe ;—and besides, he introduces the languages of the islanders of the Pacific ;—The Yolofs, (one of the blackest nations in Africa ;) the Celtic, the Hebrew, Chaldeac, Syriac, Arabic, &c ; as also containing analogies or affinities to the Lenni-Lenappi, or Delaware Indians,—thus the mind, instead of coming to any conclusion, is lost, as is well observed by the Cyclopedia, in an endless labyrinth of conjecture.

From this exhibition of the subject it will be seen, that etymology offers little or no help in investigating the origin of the American Indians, and we must therefore have recourse to other means that appear more auspicious ;—This we have done :—how far the attempt may be successful, must be hereafter determined.

I have not thought it necessary to examine the opinion, which supposes two or more different creations of men or animals. The best naturalists have agreed in the identity of the human race, and that animals have descended in like manner, from certain original

pairs ; these observations concurring with the Pentateuch, should be considered conclusive.

It seems to be of little use to enlarge upon the importance of the subject, I have undertaken to write on ;—every thing connected with the history of man attracts our sensibility ; and as men look forward to remembrance after their departure from earth, and cannot separate the idea of still existing, from their present consciousness, so we are also looking backward to the former races of living men, the possessors of the same earth in which we find ourselves, and who we feel must have been actuated by like views, desires, fears, and subject to all the changes, casualties, joys and misfortunes, which are in the picture of the world before us at present. This interest is manifested in all the inquiries which men have incessantly directed towards their progenitors ; and in the memorials of every kind, which they have attempted to set up and preserve. The common mortality to which all generations are subject, adds a peculiar feeling and tenderness to the interest universally felt ; when we inquire for those who have been, and no longer are. We look back for the traces of their being,

with a pleasing pensive desire to know more of them ;—a desire which is not quashed ; but rather grows under the difficulty of carrying on the inquiry, through the accumulation of years and ages.

Whoever attempts to trace the steps by which a people have risen from obscurity to notice among the nations of the earth, will, says the ingenious and learned Robertson, “be disappointed.” The truth of this observation is strikingly evinced by the testimonies of the several writers of history, both in ancient and modern times, whose unsatisfactory labours have been ever accompanied with complaints of this great obscurity. Some ages have passed away without any records of them ; and the history of ensuing years have for a length of time to depend only on oral traditions ; and these are so generally blended with fiction, that writers aiming at the accuracy of truth, are obliged to give up the distant pursuit, or suffer the relation to stand on the doubtful support of theoretical conjecture. But though the obscurity which at once excites and opposes the inquiry, hangs, like an immovable cloud, upon the eldest times of nations, yet it is capable of some enlightening from the reflection of cir-

cumstances, incidents and narrations, coincident and coeval, that from one side or the other break into the darkness. The collection, arrangement and exposition of these become the object of inquisitive persons, and facilitate the acquisition of such knowledge as is desired upon the subject.

The inspired writings give us the first accounts of the original formation of nations ; they are the most ancient, and surely the most accurate of histories. But in them no more is given than is barely sufficient to inform us of the beginning and state of man ; and to illustrate that, is the theological part of the volume. Brief, and strikingly concise, they seem to impart knowledge without gratifying a curiosity perhaps insatiable. Yet this must be our greatest and surest reference. Whatever profane history gives forth in fuller detail, is derived to us through one principal channel. Chaldea, Phœnecia and Egypt scarcely speak for themselves, but have delivered up what remains of their antique archives to the inquisitive and communicative Grecians. But among the fragments they have collected from the first formed empires, what a chasm appears. From the days of Noah, distinguished in most of the ancient

histories, till about 500 years before Christ, we have scarcely a fact to rest upon; and if serious difficulties arise to historians in treating of events after this period, when history assumes a form tolerably connected and regular, what shall they not have to struggle with, who, in pursuit of their object, are forced on those ages, the remembrance of which is only preserved in monstrous and mutilated traditions? They indeed hint of great events that have passed, and exploits famous in the transaction; but the story has died with the actors and witnesses, and is for ever lost.

The great and mighty kingdoms of Egypt and Hindostan, the remains of whose ancient power and grandeur have astonished the world for two thousand years; with the Assyrian empire, all rose to their zenith of greatness and power in these dark ages; and doubtless, thousands of men, distinguished as much for virtue, heroick intrepidity, and patriotism, as any of latter times, have passed away without leaving a single trace behind. The long period of years during which they flourished in all their greatness, has not left on the ample page of history one single brilliant action, or glorious achievement: and later

men have marked that series of years with the broad, emphatick, dreary words, UNKNOWN OR FABULOUS AGES.

Vixere fortes ante Agamemnona  
Multi : sed omnes illacrimabiles  
Urgentur ignotique longa  
Nocte, carent quia vate sacro.—HOR.

And even the sacred poet has not been able to establish in all minds a conviction of the truth of his narration. The very poet just cited is a striking example; for the existence of Agamemnon himself has been disputed, and the brave and chivalrous exploits of his associates and heroick enemies, have been asserted to have existed only in the glowing imagination of the bard. Thus difficulties arise one after the other, and seem as if they would perpetually recur to the embarrassment and disappointment of persons engaged in historick pursuits. And if the early civilized and polished Greeks have left the dawn of their history involved in such doubts, that their best historian acknowledges he can find nothing certain of the beginning or earliest transactions of his own nation, what indulgencies are authors not to expect, in writing on a people who have been from the earliest times, until the year 1500

A. D. utterly unknown, through a lapse of more than 3000 years ; a people having none, or remarkably few monuments ; and even those, which in some instances might have been useful, are concealed under the mysterious veil of hieroglyphic symbols — Scarcely a star glimmers on our path, yet we have to pass a wide and trackless waste, full of dangers and difficulties ; and even when we may arrive at our proposed journey's end, doubts may remain whether we have reached it by that road which so many have in vain attempted to find. But to use a simile of Dr. Burnett's, " if an ancient and intricate lock " is discovered, and after trying unsuccessfully many keys, if we at least get one " that draws the bolt, we may fairly conclude that it is the original and real key."

On the same principle, if our system explains or accounts for the various and seemingly opposite facts that are entitled to admission, respecting the Aborigines of America, we may venture to offer to the publick the inquiries made, and the result of the observations that incline us to suppose we have found the key to those difficulties, which have so long embarrassed the speculations on this interesting subject.

Perhaps no event in the history of the world, ever excited such interest among the philosophick and inquiring, as the discovery of America ; almost every circumstance connected with this continent was the subject of infinite debate and speculation. In process of time many of these obscure and difficult points were explained away, and settled to the general satisfaction of the literary world ; but other questions, and some of them of the greatest importance to philosophers, have been left nearly if not wholly in their original obscurity. Among these is the origin of the American Indians. Whence come they ? In what age did they arrive, and in what manner ? A curiosity to understand or explain the difficulties attending the peopling of America, first led the author of this essay to make some research on the subject, the result of which is now given, and in the manner and general order in which the investigation proceeded.

# RESEARCHES ON AMERICA.

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## CHAPTER I.

### WHENCE COME THE MEN AND ANIMALS OF AMERICA?

**I**T would be very unnecessary to introduce in this place, the various theories which have been proposed for solving this question; suffice it to observe, that generally they have been so very imperfect, that it has been doubted by many, whether a satisfactory answer could be given.

At present, those who do not wish to leave this curious subject in all its original obscurity, have adopted the hypothesis of Dr. Robertson; a preference, which is more, perhaps, to be ascribed to the eloquent and classical language of that great historian, than to the weight of his facts, or even the plausibility of his speculations. As this opinion is usually referred to as authority to the point in question, it may not be improper to show, that its author formed his belief on very slight grounds, and that there are several important points which such an opinion fails to elucidate.

“The vicinity of the two continents of Asia and America,” says Dr. Robertson, “renders it highly probable that the human race first passed that way

from Asia. In latitude sixty-six degrees north, the two coasts are only thirteen leagues asunder, and about midway between them lie two islands, the distance from which to either shore is short of twenty miles; at this place the natives of Asia could find no difficulty in passing over to the opposite coast, which is in sight of their own; they might have also travelled across on sledges or on foot, for we have reason to believe, from the accounts of captain Cook and his officers, that the strait is entirely frozen over in the winter, so that the continents during that season, with respect to the communication between them, may be considered as one land.

“We may therefore conclude, that the Asiatics having settled in those parts of America, where the Russians have discovered the proximity of the two continents, spread gradually over its various regions.”  
(*See Robertson's Hist. America.*)

This proposed route for the emigration of mankind from Asia to America, is, in the very commencement, opposed by the striking fact, that about Behring's Straits, the precise spot where Dr. Robertson believes man to have crossed over from one continent to the other, there is a very widely extended race of men interposed, who are utterly dissimilar to either Asiatics or Americans. This race is the Esquimaux, who, as Dr. Robertson himself acknowledges, bear a near resemblance to the northern Europeans, and none to the American Indians.

This fact, so directly adverse to the doctor's general theory, obliges him to form a new opinion as to

the origin of the Esquimaux ; whom he supposes to be descendants from the Norwegians and Icelanders. But is it probable, I was near saying, possible, that within the time that has elapsed since the fourteenth century, the Norwegians could have been degraded from their lofty stature down to that of Esquimaux ? Can we suppose, moreover, that any people used to the comforts of civilized life, would stay in the most dreary, desolate, and unfruitful region on earth—in a tract of country where the cold is so excessive, that ten degrees farther to the south than Behring's Straits, every aqueous and fermented liquid is frozen, notwithstanding the efforts of man, and where even spirits of wine are reduced by the frost to the consistence of oil ?

Besides, the Norwegians landed in Greenland ; now the Esquimaux extend across the whole continent of America, along the circle of latitude sixty-five degrees north ; a distance greater than 4500 miles ; or from Greenland to Behring's Straits ; for captain Cook found them at Norton Sound, Oonelashka, and Prince William's Sound. (*See his third voyage.*) This statement must close the absurdity of giving an European origin to this people ; for who can believe, that a colony of civilized men, would confine their migrations exclusively along the Arctic circle.\*

\* The Greenlanders and Esquimaux are certainly the same people ; this is evident from Crantz' History of Greenland ; but that they are perfectly dissimilar to any nation of Europe, or Asia, is also certain. Reese's Cyclopædia, see article Greenland, has the following observation :

“ The language of the Greenlanders seems to have no affinity in ety-

Mr. Pennant, though the most able defender of Dr. Robertson's opinion, observes that the Norwegians, when they first landed in America, found the Esquimaux already there, and gave them the name of *Skrælingues*, or dwarfish people, from their small stature. See *Arctic Zoology, Introduc. vol. i. p. 164.*

But the facts most strongly opposed to a migration to America by way of Behring's Straits, may be deduced from the utter impossibility of animals ever reaching this continent by that route; and if *they* could not arrive in this way, the theory is indefensible; for we must believe, that men and animals did come by the same passage, wherever such passage may have lain. To admit the contrary, would be a libel on the proceedings of the Deity, who, without a deviation from his uniform wisdom and simplicity of design, could not have provided two ways where one only was necessary. This must be obvious to the lowest capacity.

Some persons, however, have the hardihood to contend, that men and animals did pass by Behring's Straits to America. Such an allegation as this, supposes that animals living now only in the hottest parts

mology, signification, or declension, with any of the northern, Tartarian, or Indian languages, as far as they are known to us; excepting the Esquimaux, who, however, seem to be the same people:—their language is copious and graceful, perhaps not less so than any language we are acquainted with."

We might also apply, if it was considered necessary, every one of the arguments which we have used on the Esquimaux, to the Tschutchi on the Asiatic side of Behring's Straits; who are perfectly dissimilar to any of the Asiatic nations.

of America, such as the guanans, alligators, monkies, parrots, and a vast number more, actually past in the winter, within the Arctic circle, through a cold that congeals spirits of wine ! For the writers who maintain this hypothesis, have been necessarily obliged to make them pass in the winter, in order that they may avail themselves of a bridge of solid ice, forty miles in length, which, during this season, connects the two worlds together. Besides, is not all herbage either killed or covered with snow, for hundreds of miles, both on the Asiatic and the American side of the strait, during the inclemencies of winter ?

This brief examination of Robertson's theory, is all I conceive necessary ; the more so, as he himself simply advances it without attempting its permanent establishment. Several writers have, indeed, endeavoured to confirm it, but without success. Neither has the laboured and curious essay of Dr. Barton, nor the shorter attempt of Mr. Pennant,\* eventuated more favourably to their respective writers. Their arguments I shall pass over without notice. Dr. Barton's arguments may be found in his *New Views of*

\* It is astonishing that Mr. Pennant should support this hypothesis ; for he describes the cold of these regions so excessive, that we will in further refutation of his theory, give the following extract from his *Arctic Zoology*, Introd. I. 113.

“The climate during winter is uncommonly severe, for so low as Bolcheretsk, lat.  $52^{\circ} 30'$ , all intercourse between neighbours is stopped, they dare not stir out for fear of being frost bit ; snow lies on the ground from six to eight feet thick, as late as May ; and the storms rage with uncommon impetuosity, owing to the subterraneous fires, the sulphurous exhalations, and general volcanick disposition of the country.”

To this description we will only add, that Behring's Straits are yet  $14^{\circ}$  further to the north, than Bolcheretsk !

the Origin of our Aborigines, and those of Mr. Pennant in the introduction to his *Arctic Zoology*, vol. i. p. 161.

Some theorists have suggested an opinion, that Asiatics have been forced to sea in boats, and driven by storms or currents afterwards upon the American continent; and in this manner they account for the peopling of the new world. The most invincible arguments are opposed to this hypothesis.

Without considering the disastrous and unprovided state of persons who may have been thus unexpectedly driven to sea; and who, without water or provisions, in open boats, had to perform a dangerous navigation of several thousand miles;—such an opinion will not account for the appearance of *animals* in America; of animals not only useless to mankind, but in many instances fierce, intractable, or poisonous; or what must completely destroy the theory, the fact, that there are many animals found in America *utterly unknown* to any part of the old world.

The opinion of the Abbe Clavigero, that land once connected Africa and South America together, is certainly erroneous and imperfect; and has so few, if any advocates, that it is not deemed worth while to enumerate the difficulties his theory has to encounter.

In concluding this chapter it may be proper to observe, that in Rees's *Cyclopædia*, under the article America, the various hypothesis respecting the peopling of the new world, have been ably considered. To that work, therefore, the reader is at present referred for ample information.

## CHAPTER II.

PROPOSED SOLUTION OF THE QUESTION, TOUCHING THE  
PEOPLING OF THE CONTINENT OF AMERICA.

**H**AVING now shown, that the difficulties attending the settlement of America, by men and animals, cannot be explained by the commonly received opinions, we are in a manner forced into the belief, that our earth has suffered under some great convulsion, that has destroyed the communications that once existed between the new and old continents.

We conceive there are faint remembrances of this great event, preserved in certain traditions of some ancient nations, and regarding them in the light of collateral testimony, will preface our inquiry with a few of the most striking. There cannot be a doubt but there are many fabulous circumstances connected with them; but we are convinced, that men never make traditions or histories, without having some foundation for them; how far they may alter or corrupt the truth of the fact, is not always to be ascertained:—But in the traditions we are about to introduce, it will, I hope, be hereafter proved, that the greatness of the events have been diminished, rather than exaggerated.

Although the truth of the story related by the Egyptian priests to Solon, respecting the Island Ata-

lantis, has been disputed and denied; yet, many learned men have defended the narration, and this latter opinion has gained credence considerably within the last forty or fifty years; no doubt there is something fabulous in the narration; but that there was such an island or continent, is highly probable, and we have, within a few years, received no slight proofs of its actual existence. The relation made to Solon was as follows:

“You Greeks, says the Egyptian, are ever children; an air of youth is visible in all your histories and traditions; your country, from its situation, is forever exposed to those inundations which sweep away the generations of men, and leave no traces of the past. The lofty mountain of the Thebais of Egypt, affords its inhabitants a more secure asylum, and in its temples are deposited the records of ages and nations long buried in oblivion. There have been innumerable deluges and conflagrations of the superficial regions of the globe. Your fable of Phæton setting the world on fire, is founded on some mutilated tradition of one of these grand catastrophes, in which terrestrial things have perished, by the devastation of the igneous element. Your histories, I know, mention only one deluge; but there have been various and successive deluges prior to that mighty one recorded of Déucalion and Pyrrha. There existed an ancient and celebrated people in Greece, the wisdom of whose laws, and fame of whose valour, are renowned in the sacred writings and ancient annals of Egypt. This heroick race were as highly celebrated for their exploits by sea as by

land, as was evident in their arduous contests with the mighty nation who formerly inhabited the vast island Atalantis, now buried in the ocean which bears its name. This island was situated near the straits of Gades, and it exceeded in magnitude all Europe and Asia joined together. It was so called from Atlas, the son of Neptune, whose descendants reigned there in an hereditary line, during a period of nine thousand years; and extended their sway over all the adjoining regions, for there was an easy passage from this island to the neighbouring islands and continents; and their armies passing over into Europe and Africa, subdued all Lybia, to the borders of Egypt, and all Europe to Asia Minor: in succeeding ages, owing to prodigious earthquakes and inundations, in the space of one day and night, all that part of Greece which your ancestors inhabited, was desolated and submerged, and the Atlantic island itself, being suddenly absorbed into the bosom of the ocean, entirely disappeared, and for many ages afterwards, that sea could not be navigated, owing to the numerous rocks and shelves with which it abounded."

As a proof of the existence of this island, or country Atalantis, Mr. Taylor, who has translated the works of Plato, gives the following relation of one Marcellus, who wrote a history of Ethiopic affairs, according to Proclus, in *Tim.* p. 55.\*

"That such and so great an island once existed, is convinced by those who have composed histories of

\* Proclus lived 800 years after Plato. The works of Marcellus, whom he quotes, are lost.

things relative to the external sea; for they relate that in their times there were seven islands in the Atlantic sacred to Proserpine: and besides these, three others of an immense magnitude, one of which was sacred to Pluto, another to Ammon, and another, which is the middle of these, and is of a thousand stadia, to Neptune; and besides this, that the inhabitants of this last island preserved the memory of the prodigious magnitude of the Atlantic island, as related by their ancestors, and of its governing, for many periods, all the islands in the Atlantic sea." (*See Rees's Cyclop. art. Atlantis.*)

The Hindoos have in their ancient maps and records, a region called *Atala*, which they assert was sunk by earthquakes. (*See Asiat. Research. vol. iii. p. 300, and also vol. viii. p. 375, where a more enlarged description is given.*)

The appearance of the globe in that part in which this catastrophe is said to have happened, has been asserted by some learned men to bear marks of such an event having taken place; and that the Canaries, Azores, and Teneriffe, are nothing else than the tops of mountains belonging to land sunk in the Atlantic Ocean. Buffon says this tradition of the Island Atlantis is not devoid of probability, and that the lands swallowed up by the waters were perhaps those which united Ireland to the Azores, and the Azores to the continent of America.\*

\* The presence of volcanoes, either burning or extinct, in every island in the Atlantic Ocean, may be considered as no slight argument in our favour. In the Azores alone, there are upwards of forty extinct or active volcanoes.

Mr. Whitehurst says so much in favour of our hypothesis, that we will give the extract in his own words. He was treating on the Giant's Causeway in Ireland, which he asserts is of volcanic origin. "Whoever attentively views and considers these romantick cliffs, together with their exterior appearances, will, I presume, soon discover sufficient cause to conclude, that the crater, whence that melted matter flowed, together with *an immense tract of land* toward the north, has been absolutely sunk and swallowed up into the earth, at some remote period of time, *and became the bottom of the Atlantic Ocean.*" (*See Whitehurst's Works.*) He also makes an observation, that he was almost persuaded Ireland was originally a part of the island Atalantis.

This opinion of Whitehurst's is strengthened by the following remarkable tradition of the old Irish, given by an author of great reputation, whose entire works I regret I have never been able to see. The gentleman alluded to is general Vallancey, who says the old Irish relate, "that a great part of Ireland was swallowed up by the sea; and that the sunken part often rises, and is frequently seen on the horizon from the northern coast. In the north-west of Ireland they call a city of this enchanted island *Tir Hud*, or the city of Hud, believing one stands there which once possessed all the riches of the world. This is a general tradition with them. This island is called *O Breasil*, or *O Brazil*,\* which signifies Royal Island."

\* There is a rock in the Atlantic Ocean, off the eastern end of Ireland, which in Bowle's Maps, No. 35, is called *O Brazil*. I have had no opportunity of examining this subject further.

General Vallencey says, "it is evidently the lost city of Arabian story, visited by their prophet Houd, namely, the city and paradise of Irem." He compares this tradition with Whitehurst's observations on the Giant's Causeway, and suspects it refers to the *lost Atalantis*." (*See Notes to Southey's Madooc, vol. i. 238.*)

It is very probable, says Mr. Ray, (*see Buffon, vol. i. 491.*) that the islands of Great Britain were formerly joined to France: whether the separation was occasioned by an earthquake, or an irruption of the ocean, we know not, but its former junction is evident from the identity of the rocks and different strata, at the same elevation on their opposite coasts, and from the similar extent of the rocks on each side being both about six miles. The narrowness of the strait, which is not more than twenty-four miles, and its shallowness, when compared to the depth of the neighbouring sea, render it probable that England has been separated from France by some accident. He adds farther, to prove their former union, that wolves and bears once existed in England: it is not probable that these animals could swim over, nor can we be so absurd as to suppose men would transport them over; we must therefore come to the conclusion, that there has been an union between the island and continent, which enabled them to pass without difficulty.

Kirwan, in his work on Geology, says, that England and Ireland have been separated from each other, and the continent, since the deluge.

Pennant, (*see Introduction to Arctic Zoology, i.*

11.) says, he is of opinion that England was part of the Island Atalantis.

The Islands of Scilly, are believed by many of the English Geologists and Antiquarians, to have been violently separated from Cornwall.\* (*See Hist. of Scilly Isles, by Robt. Heath, 234.*)

The ancient name of these Islands of Scilly, was SORLINGS, which in the old British language signifies, *separated from the height of the land.* (*See Cyclop. art. Cassiterides.*)

Mr. Bakewell, in his late work on Geology, page 234, observes, "The position of the strata in the Isle of Wight, demonstrates that some great convulsion has upheaved from their foundations, and overturned the whole mass of Chalk Rocks, and the superincumbent strata, which covers them not less than 3000 feet in thickness. At the period when this was effected, it is not improbable that England was separated from the continent."

Though somewhat irrelevant to our subject, we introduce the following article from Buffon, as testimony in our favour, of the great changes which have happened in our globe since the *Noachich* deluge. Buffon asserts, that the Mediterranean sea is not an ancient gulf, but that it has been formed by an eruption produced from some accidental cause; such as an earthquake swallowing up the barrier, or a violent

\* There are numerous Geological facts which countenance the belief that there has been a great destruction of land around Great Britain; see, among many instances, the report of the Abbé Correa de Serra, (*Philos. Mag.* IV. 287.) on the Subterraneous and Submerged Forest, on the coast of Lincolnshire. *Pinkerton's Geog.* I. 181.

effort of the ocean occasioned by the wind, and forcing its way through the bank, between the promontories of Gibraltar and Ceuta. This opinion is supported by that of Diod. Siculus and Strabo, who inform us that once the Mediterranean sea did not exist; it is likewise confirmed by natural history, and observation upon the strata, on the opposite coasts of Africa and Spain, whereas, in the neighbouring mountains, the beds of earth and stone are the same at equal levels. (*See Buffon, vol. i. 35.*)

Might not the great convulsion which destroyed Atalantis, also have occasioned the formation of the Mediterranean sea? It is possible, as that island was in part situated before the pillars of Hercules, according to the Egyptian priest.

Mr. Bakewell, in his work on Geology, p. 237, appears to meet this question, by observing that a violent subterranean explosion, nearly in this neighbourhood, took place in 1775; which shook in the same hour all northern Africa, the southern kingdoms of Europe, and was felt on the distant shores of the American Islands.

We have now shown, that there is some argument for our belief, that land once existed in the Atlantic Ocean; we can also show that the countries and islands on and in the Indian and Pacific Oceans give evidence that land was once submerged in those portions of the globe,

The Ceylonese have a tradition, that an irruption of the sea separated their island from the peninsula of India; and a similar tradition is related by the inhabitants of Malabar, in regard to Sumatra.

Pallas gives his opinion, that volcanic eruptions have destroyed land that existed formerly between the Philippine, Mariane, and Caroline islands ; also between New Guinea, New Holland, the Molucca, and Maldiva islands.† (*See Howard on the Globe, 359.*)

Sir Joseph Banks says, "From many circumstances it may not be unreasonably supposed, that Otaheite and the neighbouring islands are either *shattered remains of a continent*, which some have supposed to be necessary in this part of the globe, to preserve an equilibrium of its parts, and which were left behind, when the rest sunk by the mining of a subterraneous fire : or were torn from rocks which from the creation of the world had been the bottom of the sea, and thrown up in heaps to a height that the waters never reach. The sea does not gradually grow shallow, as the shore is approached : the islands are almost every where surrounded by reefs, which appear to be rude and broken, as some violent convulsions would naturally leave the solid substance of the earth."

The inhabitants of Otaheite have a tradition, that once the great Gods in their anger, *broke in pieces the whole world, and that islands are but small parts of the great lands, &c.* (*See Nature and Art, vol. ix. 66.*)

As a collateral argument, we observe that there is

† So universal are the traces of volcanic fires throughout the Pacific Ocean, that New Caledonia is remarkable, from the circumstance of not exhibiting any marks of their appearance. (*See Rees's Cyclopaedia, New Caledonia.*)

a period in the Hindoo histories, which was characterized by the *great earthquakes* that took place at that time, which were sufficient to make an *yug* or age of earthquakes. (*See Hist. Hind. vol. i. 503.*)

Clavigero in his history of Mexico, relates that the Mexicans, in their descriptions of the different ages of the world, say that the second age lasted from the time of the *inundation* until the ruin of the giants, and the *great earthquakes*, which concluded the second sun, which they supposed was destroyed at the end of every age.

In concluding this chapter, we will only remark, that the number of traditions and geological observations, having a reference to a great convulsion of our earth, must strike the reader as some evidence in our favour; the universality of these traditions, also induces us to believe that a great extent of land has been destroyed.†

† It is impossible to apply the science of geology at large, to this hypothesis, for the original conformation of the globe is unknown; the arrangement of mineral substances are unknown; the internal structure of the globe is unknown; the causes of earthquakes and volcanoes, those important agents in geology, are unknown. In fact it might be asked, What is known of Geology? Nothing. Formerly, whenever the deluge, or any great revolution or convulsion of nature was mentioned, the writer framed a system of geology for his own use; generally composed of various strata of oil, earth, water, fire, &c. &c. By a dextrous management of these strata any changes were made or modified, according to the will of the theorist. A complete stop to such system framing has taken place of late years, by the ingenious and interesting discovery of the density of our earth; this mathematical problem has thrown all of our geological speculations into confusion and inconsistencies, from which it is not likely they will shortly recover. The great object to be proved by this essay, to wit, a great submersion of land, must therefore derive its support from the consideration of other sub-

From the present appearances of the earth, its islands, and other circumstances connected with them, we do not think it a hasty or rash declaration to say, that we believe, since the deluge, there was land of great extent in the Pacific, Indian, and Atlantic Oceans; no doubt much shattered and broken, yet not to such a degree as to hinder men and animals from roaming through the extended parts. During this state of things, or whilst men and animals were traversing the world, this land was generally submerged; and though numbers of men and animals were doubtless destroyed, yet the new formed islands (fragments of this land,) preserved many; and thus early severed from the rest of the world, these fragments of the human family have remained through successive generations, until the spirit of navigation and modern enterprise once more united the links between them and their brother men.

jects, and which may indirectly lead to conclusions, satisfactory on this head, I therefore trust the defence of my geological theory to the ensuing chapters of this work.

It may be well, however, to observe, that the old opinion which considered the creation and the deluge as the only events, which comprehend the changes that have taken place on our earth, has been set aside by late geologists, especially by the celebrated Cuvier, who decidedly considers our earth to have suffered under three universal convulsions of nature. "Life," observes the same celebrated philosopher, "has often been disturbed on this earth by terrible events; calamities which at their commencement, have, perhaps, moved and overturned to a great depth, the entire outer crust of the globe; but which since these first commotions, have uniformly acted at a less depth and less generally." (*See Cuvier's Geology*, 15.)

## CHAPTER III.

## ON THE ISLANDERS OF THE PACIFIC OCEAN.

As further proof of what has been asserted, there are some extraordinary circumstances connected with the islands in the Pacific Ocean, that most strongly support the idea, that a large tract of land once existed across that sea; and which has been submmerged.

How these islands have been peopled, is as curious as the settlement of America; and the facts that explain the one will also elucidate the other.

In looking over the map, we find New Zealand about 1500 miles distant from New Holland; *which if not the nearest to it is as near as any other land*; and from which the Zealanders, according to the common theory, can only be supposed to have come: now the New Hollanders are mostly, (for some are like Malays) as black as African negroes, flat noses, wide nostrils, wide sunk eyes, thick brows and lips, very large mouths, low stature and ill made, arms, legs, and thighs, thin. The New Zealanders are brown and yellowish, long black hair, and in one of their two islands some have white features, regular and pleasing.

Is it possible then, that under such circumstances we can believe the people of Zealand came from New Holland, or that their animals ever swam 1500

miles, the distance between New Holland and New Zealand.

The New Hebrides, New Caledonia, Queen Charlotte's Islands, &c. lay nearest to Papua or New Guinea; from which, on the most moderate calculation, *they are 700 miles distant*, and nearly that distance from one to the other. We find the inhabitants of these islands nearly like the Zealanders; and completely different from the Papuans, who are black and shining, woolly heads, and other characters of negroes.

The Friendly Islands are distant from these last group, *which are nearer to them than any other land*, about 1200 miles.

The Society Isles are about 1200 miles distant from these last islands.

The Sandwich Islands lay above 3000 miles from America, and at least 1500 miles from those groups of islands, where man is supposed to have crossed the ocean; and Maria Lajara is 300 miles distant from the Sandwich Islands.

Yet over these insulated spots, have philosophers believed, men actually crossed to America, and that our animals also came by the same route. A map of this sea is the most striking authority against such an opinion; and should be consulted as to the distance and relative situation of these islands to one another, and to America.

So great is love of theory, that the possibility of crossing the Pacific Ocean to America, in the way we have just mentioned, has been insisted upon, from the rare circumstance of finding a few savages

in canoes, at considerable distances from land, whether they had been driven by winds or currents. We grant that they have been found at great distances from their islands; but never to one-third of the distance that some islands lay apart, or from the continent, and where they have been found; the fact is mentioned, only as being very surprising and uncommon.

During all the many voyages that have been made in this sea, the circumstance of thus finding them, as far as I know, does not amount to more than five or six instances; and never have they been found with animals in their canoes, from whom other lands might be supplied.

But if ten thousand men in canoes, unprepared as these savages, were thus driven out to sea, not one in a thousand could possibly go half the distance between some of these lands without starving; and then what are the chances of their touching land at all? The idea is absurd, and requires no further comment.

Capt. Cook asks, "How shall we account for the Otaheitans having spread themselves, in so many detached islands, so widely disjoined from each other, as in the Pacific ocean? We find the language of these islanders, from New Zealand in the south, as far as the Sandwich to the north; and in another direction, from Easter Island to the New Hebrides, to be dialects of the Otaheitan: that is over an extent of ocean of 60 degrees of latitude, or 1200 leagues N. and S. and 83 degrees longitude,

or 1660 leagues E. and W.” See *Cook’s Voyage*, 4to. vol. ii. 251.

This singular circumstance has struck most of the navigators in the Pacific, and who have all made similar queries. Nothing can be more in favour of our hypothesis than this remarkable fact.

Mankind, after the confusion, marched, according to Moses, in three directions. The children of Ham went to Africa, Japhet peopled Europe, while Shem held his course towards the East. By this it is not to be understood, that they each went in a body to these respective parts of the earth; but, on the contrary, that they were in small tribes or families, and roving over the world.\* A continent then stood where now is the great Pacific ocean; and while men and animals were in this loose and unsettled state, this tract of land was in great measure sunk under the water, and only the tops of its mountains and highlands remained above the surface of the sea. These new made islands saved numbers of men and

\* This is certainly the most natural course that men would follow. It does not appear that any particular allotment of country was assigned to any particular tribes or people; though I am willing to allow, that the respective descendants of Shem, Ham, and Japhet, migrated in general towards some particular points, more or less remote from each other. I subjoin the following authority to this opinion.

Huc fuit quod rerum Phœnicicarum vetustus Scriptor Histæus Milesius, postquam eos qui e diluvio evaserunt venisse dixit in Sennar Babylonæ; addit continuo; de cætero inde dispersi propter linguarum varietatem, *habitarunt ubivis; et unus quisque terram occupavit in quam incidit.* *Bochart Phaleg, page 72, quarto.*

This was also the opinion of Bochart. And in further proof, we will presently exhibit some examples or instances, which can only be explained by this opinion.

animals, who were thus cut off from the rest of mankind, until their discovery a few years since by modern enterprise.

According to the learned Jackson, and many ingenious and sensible commentators on the Mosaic writings, the language of man at Babel was not divided into radically different languages, but into dialects of some few original and distinct languages. Now as the settlements of the children of Shem were towards the East, &c. the languages over its extent may have been mere dialects from one common root, belonging to that branch of Noah's family only : of course, when the division of the earth took place, these dialects, of one or two roots, would be found in those islands ; the remains of land, once settled or travelled over, to the descendants of Shem ; and thus the great extent of sea, where we find this extraordinary diffusion of one language and its dialects, may be explained and accounted for.\*

From the subjoined observation, this appears to be undeniable. In sir William Jones's *Disquisitions on the Nations of the East*, he introduces the observations of a distinguished author, (Mr. Marsden,) on the insular dialects of the Indian and Pacific Oceans,

\* For a fact that will have an analogous explanation, to what has been observed on the extent of the diffusion of one language throughout the Pacific Ocean ; we refer to Gen. Valancey's *Irish Grammar*, where it is asserted, that all the European nations were originally of Celtic extraction ; more particularly the *Spaniards, Portuguese, Gauls, Germans, Scandinavians, Britains, Picts, Scots or Irish, Alpenines, Ligurii, Umbrians*, and several others of *Italy*, as well as sundry others seated in *Russia, Salmatia, Hungary, Poland, &c.* (*See Irish Grammar, page 10.*)

which he decidedly affirms to be all dialects of the Sanscrit, the original language of the East, and from which the languages of the Eastern world may even now be generally derived. See Sir W. Jones's *Works*, iii. 175.

Dr. Barton, see NEW VIEWS, &c. says, that strong analogies may be pointed out between the languages of the Pacific Islanders, and the American Indians.

How can we explain these striking facts, unless by the theory we have advanced ; for we can now trace a language originating in Eastern Asia, diffusing itself throughout the great Pacific, and afterwards spreading into America.

From certain analogies between the language of the Malays, and that of the Islanders of the Pacific Ocean, it has been supposed, that the Malays colonized or settled these Islands. Mr. Marsden, whom we have just quoted, shews the language of the Malays is also a dialect of the Sanscrit—It therefore follows of course, that the languages of the Pacific Islanders, will have some resemblance to the Malay, for they are both dialects of one original stock ;—but even supposing that it was proved the Malays were the original settlers of these islands, how were the animals transported, or who carried those animals, such as the Ornithorincus or the Kangaroo, which are found in these Islands, not only unknown in Malacca, but to the remainder of the world.

This *Malay diffusion*, as it has been called, has excited the inquiry of Dr. Pritchard, a very ingenious physician ; who at last abandons this theory in the following language :

“After a minute inquiry on the Malays and the diffusion of Malay colonies through the Indian and Pacific Oceans, we shall be obliged to give up the hypothesis of Malay extraction to the Islanders of the Pacific ; and a very curious field of inquiry is opened to our view, by the observation, that *many unequivocal marks remain in the Indian Islands, and in various parts of the Indian continent, declaring a state of manners to have existed in those countries, prior to the introduction of more polished and artificial modes of life, which closely resemble the rude and barbarous customs of the Pacific Islanders.*”—Pritchard on Man, 306.

The explanation of this fact is extremely easy and favourable to our theory ; for it is supposed that men had passed in many places over these islands, *then a continent*, from the central country of Babel, with only a slight dialectical difference in languages, and less in manners and customs ;—the sinking or destruction of land, cut off these Islands from the continent, and the Islands of the Pacific from the Indian Islands. But the communications between the continent and Indian Islands, were not entirely destroyed ;—hence they and the continent have more refined forms of religion, and more artificial habits, which are the result of greater luxury, or knowledge, or civilization. But the immense distances between the Islanders of the Pacific and the Indian Islands, has prevented any intercourse—and whatever improvement has taken place in the manners or habits of these very remote Islanders, is peculiar to

them—or it was effected by a population consisting of a few thousand. The Indian Islands and continent, on the contrary, containing millions of inhabitants, and holding an intercourse with the rest of the world, have improved and bettered their original habits or customs—but which anciently were precisely similar to those of the Islanders of the Pacific Ocean.

Though we admit there is a certain resemblance of the Islanders to one another, according to the account of Capt. Cook ; yet this is done with certain qualifications—and we will shew that there are several diversities, and even different races of men existing among the scattered Islands of this immense Ocean.

Thus the people of the Sandwich Islands so closely resemble the New Zealanders, that notwithstanding the distance between them (which is upwards of 4000 miles,) both Captain Cook and Dr. Pritchard suppose them a kindred race.

Dr. Pritchard observes, notwithstanding the distance of the Sandwich Islands from New Zealand, there are many reasons for believing that they derived their population from that country, rather than from any of the clusters of islands which are situated more in their vicinity ; for in manners the natives in many respects, resemble the New Zealanders, much more than the Otaheitans, or the Friendly Islanders, (which lay exactly between the Sandwich Islands and New Zealand.)\* (*See Pritchard on Man*, 291.)

\* Among other facts which shew there never had been any communication between the natives of the Sandwich Islands and any of the im-

Again; the circumstance of finding the people of New Holland, Papua, &c. black, and yet surrounded by men of an olive, copper, or white colour, is very singular. It undoubtedly shows, that the black colour of this variety of our species is of the greatest antiquity, for no writer ever supposed they came from Africa under existing circumstances. Their being found there now, may be explained by the supposition, that a few families of this colour, either by accident or design, left their more immediate kindred, and went eastward, along with the children of Shem; by the sinking of land they were here arrested in their march, and confined to the lands whose tops remained above the ocean. That they are a different race from the other islanders of the Pacific, is clear from their dissimilarity not only as it respects form and colour, but from the circumstance of their language, with the exception of one or two instances, having no analogy with any other language yet examined. *See Nature and Art, vol. ix. 258.*

In this same manner must we account for the people of Mallicolo; the Nassau, or Poggys Islands; Madagascar; the Island of Andaman; Island of Tchoka or Sagaleen; Chica or Jesso; the Kurile Islands; the Japanese, and perhaps the Biscayans and Tchutchi.

Now to shew that we have not *fancied* the people,

mediate Southern Islanders, is the remarkable one, that the first mentioned did not know how to preserve the bread fruit, until they were instructed by the English under Capt. Cook; who had acquired this knowledge at the Friendly and Society Islands. *See Cook's Voyage, vi. 2050.*

just enumerated, to be different from their neighbours, we will give short extracts from good authorities as to the fact.

#### MALLICOLO.

On this Island which is one of the New Hebrides, Captain Cook observes, "the natives are unlike all other Islanders we have met with, and they speak a different language." *Cook's Voyage*, iii. 599.\*

#### NASSAU OR POGGY ISLANDS.

"From the proximity of these Islands to Sumatra, which in respect to them, may be considered as a continent, we should naturally expect to find their inhabitants to be a set of people originally derived from the Sumatra stock, and look for an affinity in their language and manners;—but to our no small surprise, we find a race of men whose language is totally different, and whose customs and habits of life, indicate a very distinct origin, and bear a striking resemblance to those of the inhabitants of the late discovered Islands in the great Pacific Ocean." *Asiatic Researches*, vi. 77.

The distance between them and the nearest of these Islands of the Pacific, is not less than 3500 miles.

\* It may be observed, as a curious circumstance, that Capt. Cook observed the Syrix or Pans pipe, in use among the natives of this Island.

Dr. Pritchard observes, that the natives of Mallicolo do not differ in so great a degree, from the other Islanders of the Pacific, as Capt. Cook supposed. But as his reasoning depends upon certain etymological affinities between them and the other Islanders of this ocean, perhaps it may be just as correct to adopt Capt. Cook's opinion.

## MADAGASCAR.

Madagascar is inhabited by two different races of men ;—some tribes are of a deep black colour with crisp or woolly hair, in short they are true negroes ; other tribes have lank and smooth hair, and are tawny ; some are *copper coloured*. The affinities in their language proves the inhabitants of Madagascar to be connected in origin with some of the natives of the Indian Archipelago. (*Pritchard on Man*, 219.)

To this I will add the distance between these two kindred people, which is upwards of 3600 miles.

## ISLAND OF ANDAMAN.

“ Opposite to the coasts of Malacca is the Island of Andaman—the people of this island have woolly heads, and perfectly resemble negroes.”—It has been said that they are the descendants of a crew of Africans which were wrecked upon this island. But Pinkerton shews the absurdity of this opinion, by remarking, that this people are mentioned, with all their peculiarities, by Mahometan travellers in the ninth century ;—he adds also, that it is very difficult to conceive for what purpose a cargo of slaves could be steered in that direction, especially at that early period :—he observes, “ they may be the same race with the negroes of the Pacific Islands.” This is very likely—but even in this case, they are 2800 miles distant from either Papua or New Holland. (*See Pink. Geog.* ii. 158.)

ISLANDS OF TCHOKA OR SAGALEEN, CHICA OR  
JESSO, AND THE KURILES.

These Islanders are a race of men different from the Japanese, Chinese, Kamtshadales and Tartars.—La Perouse considers it as indisputable that these Islands have not been peopled from the neighbouring parts of the continent, and that their inhabitants are a colony perhaps even strangers to Asia. (*La Perouse's Voyage*, ii. 485.)

The Japanese and Biscayans are said, by Baron Humboldt, and Rees's Cyclopædia, to be different nations from any others surrounding them.\* (*See Humboldt's Researches*, octavo, i. 19.)

The Tchutchi are entirely dissimilar to any of the Asiatics. (*See Lesseps, Pallas, Tooke*, † *Pennant*, &c. and *Pink. Geog.* ii. 43.)

These facts must be considered as greatly strengthening our theory.—They cannot be explained but as we have done in the case of the new Hollanders; (*page 44*) and neither could these several tribes have

\* "The Cantabrian, or language of the province of Biscay, does not appear to have any affinity with any other known language, abating some Spanish words which have been adopted in it, for things whose use the Biscayans were anciently unacquainted with." *See Rees's Cyclopædia.*

† Mr. Tooke's opinion is highly consonant with what we have maintained; he remarks,—“There is nothing more probable than that this nation is an American colony; perhaps in some great revolution of nature in this our globe, a violent irruption of the sea has divided the continent into two parts, and formed that great cluster of Islands between them, and thus this tribe and that of the Koriacks, may have been separated from their American brethren.” *Tooke's Russia*, III. 163.

ever reached the Islands where they are found, unless the land afforded them a passage, which land has since been submerged or destroyed.

We will exhibit this subject in another point of view, by shewing there has been a difference in knowledge, and refinement among the Islanders of the Pacific Ocean, which also can be explained by our hypothesis,—and which has never been done by any other opinion.

The fact alluded to is, that in Easter Island are found stone statues and monuments, undoubtedly proving their erectors to have possessed a degree of refinement much superiour to any thing hitherto discovered in the isles of the Pacific sea.

Capt. Cook, who visited this island, has given a general account of these monuments, and in a manner sufficiently interesting to induce us to make an extract of it.

“These statutes or at least many of them, are erected on platforms which serve as foundations ; the workmanship of them is rude, but not bad, nor are the features of the face ill formed, the nose and chin in particular, but the ears long beyond proportion, and as to the bodies, there is hardly any thing like a human figure about them.

“The platforms upon which these gigantic statues are raised, are of mason-work, and some of them are 30 or 40 feet long, 12 or 16 broad, and from 3 to 12 in height. They are built, or rather faced, with hewn stones of a very large size, and the workmanship is not inferiour to the best plain piece of masonry we

have in England. They use no sort of cement, yet the joints are exceedingly close, and the stones morticed and tenanted one to another in a very artful manner ; the side walls are not perpendicular, but inclining a little inwards, in the same manner that breast-works, &c. are built in Europe. Yet have not all this care, pains and sagacity been able to preserve these curious structures from the ravages of all devouring time.

“ We could hardly conceive how these islanders, wholly unacquainted with any mechanical power, could raise such stupendous figures, and afterwards place the large cylindrick stones upon their heads, &c. But let them have been made and set up by this, or by any other method, they must have been a work of immense time, and sufficiently show the ingenuity and perseverance of the islanders in the age in which they were built ; for the present inhabitants have most certainly had no hand in them, as they do not even repair the foundations of those which are going to decay. (*Cook's Voyage in 1772, 3, 4, 5. vol. i. 294, et seq.*)

De la Peyrouse measured one of these statues, or busts, and found it 14 feet 6 inches high, and 7 feet 6 inches diameter at the shoulders ; and he speaks of others that must have been of greater dimensions.

A writer on the Games of Palamades, remarks of these busts, that “ they are to all intents *obelisks*, as is observable by the bonnet on the head of each being the *frustrum of a cone*.” (*See Observations on Games of Palamades, p. 92.*)

Mr. Bryant notices these statues as an instance of the astonishing diffusion of one religious system over the earth. He attributes the invention of such works to the family of Cush, a grandson of Noah. (See Bryant's Analysis, *Worship of the Sun.*)

The explication of the preceding facts, is highly in favour of the truth of our theory; for Easter Island, being the most distant of all the isles of the Pacific from Asia, and if the present physical state of that sea is the same as it has been ever since Noah's flood, whence can the inhabitants of that detached isle be derived, and by what means did they arrive there? If they come from Asia, from Island to Island, we ought to find similar monuments in New Holland, Society and Friendly Isles, &c. But this is not the case, and the same argument applies against their being immediately derived from any island in the Pacific ocean. Yet we have shown, from the authority of Mr. Bryant, that these statues, have a connexion and reference to the inventions of the ancient continental world. No explanation can be given unless in the manner we formerly laid down, that their ancestors possessed a greater degree of refinement than the ancestors of the other islanders though of the same tribe, as is evident from their language; and that they were arrested in their march by the sinking of earth, and confined for ever to an Island. The reason they now show no marks of superiority over their fellow islanders, is, probably from the circumstance, that their island has suffered exceedingly by volcanoes. Capt. Cook says, it is the most

barren island in the Pacific, and the whole attention of the present miserable inhabitants must be directed to the means of procuring a subsistence.

La Peyrouse makes similar observations relative to the barrenness of this Island,—he ascribes it in great measure to the want of fresh water, which is so great, as to oblige the natives to drink the water of the ocean.

From the slight account given in Anson's voyage respecting the Island of Tinian,—we might also infer a similar superiority over the neighbouring Islanders;—the square pillars surmounted by hemispheres, of which he has given a plate, appear to resemble the Egyptian style of architecture, but as I have not seen any other account than the abovementioned one, I cannot urge this fact further.

There are several instances in America of a mixture of different races; which can only be explained as we have done, in page (39). The Esquimaux we have before mentioned as an instance; and Dr. Robertson, in the notes to vol. ii. p. 474, *Hist. America*, observes that the Carribees are certainly a different people from the inhabitants of the large West India islands; their language, he says is totally different.

The Abbe Molina observes,—There is a tribe of Indians in the province of Baroa in Chili, whose complexions are of a clear white and red, without any intermixture of the copper colour. (*Hist. Chili*, ii. 4.

Baron Humboldt says :—In the forests of Guiana especially near the sources of the Orinoco, are several tribes of a whitish complexion, the Guiacas, Guajaribs, and Arigues, of whom several robust individuals exhibiting no symptoms of asthenical malady, which characterises Albinos,—have the appearance of true Mestizoes.\*—Yet these tribes have never mingled with Europeans, and are surrounded with other tribes of a dark brown hue. (*See Humboldt, Polit. Essay, i. 108.*)

Baron Humboldt mentions many other diversities among the American Indians ;—we will only introduce another instance as being connected with some opinion relative to the cause of colour ; and which coming from so learned and intelligent a writer, may be well worthy of the notice of those persons making inquiries upon colour.

“ Under 54°, 10'. of N. lat. at Cloak Bay, in the midst of copper coloured Indians with small long eyes, there is a tribe with large eyes, European features, and a skin less dark than that of our peasantry ; —All these facts tend to prove that notwithstanding the variety of climates, and elevations inhabited by the different races of men,—nature never deviates from the model, of which she made selection thousands of years ago.” (*Ibid. i. 109.*)

\* A Mestizo, according to this writer is the son of a white and a native of copper colour : His colour is almost a pure white, and his skin of a peculiar transparency. If a Mestizo marry a white man, the second generation differs hardly in any thing from the European race. *Humboldt's Polit. Essay i. 183.*

## CHAPTER IV.

## OF THE ANIMALS OF AMERICA.

**W**E anticipate a question here from the zoologists, why do we not find all the animals of America in the old world, and vice versa, if we suppose they passed by land from the old world to this. In the first place, let them answer how is it, that the genus *sukotyro* is confined to Asia, or the genera *cameleopardalis*, *hippopotamus*, and *hyrax*, are found no where else but in Africa,—or how is it, that we do not find the polar bear with the tiger in Hindostan? When these questions are satisfactorily answered, as good reasons can be given why there are some animals in America, which are not known to exist in the old world.

But suppose we drop our opinion of a connecting land between the two continents; how do you imagine animals reached America? It certainly cannot be supposed that the *guannas*, alligator, monkeys, and other animals that can only live in the hottest parts of America, marched up to Behring's Straits, where they could only pass if they went northwardly. Do you suppose the animals mentioned could endure a cold that congeals spirits of wine? for recollect the theory that asserts they passed that way, obliges them to cross these straits by a bridge of ice forty miles

long, in the winter season ; and at a time when all vegetation is covered with snow, some hundreds of miles, both on the Asiatic and American shores.

Though it is not worth while to make an inquiry, we will see how they might manage to pass southwardly ; for if my maps are correct there is no other way left. We here see some islands as stopping places for them, though it must be confessed that some of these islands are situate no little distance from one another, for which recollect what has been discussed on the subject of islands. But the monkeys, opossums, guanna, squirrel, wild cat, &c. do not swim ; how did they pass the ocean ? did they come, Arion like, on the backs of dolphins, whales or turtles ? and by what wonderful sagacity did they find out New Zealand or the Sandwich Islands, that lay not only hundreds, but thousands of miles out of their supposed track.

This is ridiculous. The opinion of St. Augustine, who supposed the angels carried them over, is laughed at, when at the same time recourse is had to as absurd a miracle, to support this opinion. And to bring the subject back to where we started from, why did some leave the old world entirely, and others not come at all ?

The circumstance of finding some animals peculiar to America, has been made a most wonderful difficulty to explain ; and Dr. Barton, to solve it, has proposed a new and separate creation for this continent ; yet a similar state of things are observable in

almost every country of the globe ; and every square of a few hundred miles has animals, minerals, &c. peculiar to itself, or in a greater or less number than has an adjoining tract of similar extent. Thus France possesses ten species of quadrupeds more than Great Britain ; and yet Pennant says, England received her animals from France, by means of land that once connected the Isles of Britain to the continent. (*See Pennant's Arct. Zoology, vol. i. Introduct. p. 5.*)

But many animals said to be peculiar to either hemisphere, may yet be discovered in those countries and situations in which philosophers have denied them an existence. Thus the antelope and the sheep have been found in America, by Captains Lewis and Clark ; and perhaps when the continent of Africa, and some countries of which we scarcely know any thing, are sufficiently explored, we may find the tapir and glama there.

And of late, discoveries in zoology have been made, which diminish the number of animals said to be peculiar to America. Thus, the sloth, ant-eater, opossum, Maryland marmot, and some others, have been found in other places than on the continent of America.

## TABLE

*Of some Animals said to be peculiar to America, but which have been found in other Places than on that Continent.*

NAME.	WHERE FOUND.	AUTHORITY.
Sloth, - - -	Ceylon, - -	Pennant's Hist. Quad. vol ii. p. 496.
Ant-eater, - -	Ceylon, - -	Pennant's Hist. Quod. vol. ii. p. 511.
Maryland Marmot,	Bahama Islands,	Pennt. Arct. Zoology, vol. i. Introd. p. 172.
New York Bat,	N. Zealand, -	Pennt. A. Zool. vol. i. Int. p. 174.
Raccoon, - -	Isles of Maria, off Cape Corientes,	Pennt. A. Zool. vol. i. Int. p. 171.
Opossum, - -	N. Zealand, -	Cook's Voyage in Re- solution and Advent- ture, in 1772-3-4-5 : vol. i. p. 113.
Armadillo, - -	Sumatra, - .	Marsden's Hist. of Su- matra, p. 94.
Coyoto, - - -	N. Holland, -	Compare Clavigero and Shaws Zoology. <i>See Dingo.</i>

From the table we have just given, it appears, that several of the animals, once asserted to be peculiar to America, have been found in the *islands of the sea*, and at *immense distances from America*, as, for instance, New Zealand. Is it not strange how these animals got to these islands ? for they are only found in America, and in these detached and insulated spots of earth, and *not on the continent of the old world*.

Must we therefore believe, that the animals just mentioned, originally migrated from America to the islands ; or, that they were created in the islands and migrated to America. But if either of these ways be correct, why did not these same animals spread over

Europe and Asia; for in either case it would be equally easy to go from the islands to Asia, as it would to America; and if they went from this continent to New Zealand, for instance, would it have been more difficult for them to go from thence to New Holland, and from thence to one place and another, throughout Asia: but we find this is not the case; therefore, *some animals by their own will, or instinct, have chosen to quit the old world for this, and others equally unrestrained chose to stay.\**

Again—If animals were carried by men to these islands, or even if the animals swam there of their own accord,—how can the following fact be reconciled to either opinion.

“The Indian Isles, even those which are at no great distance from New Guinea,—abound with oxen, buffaloes, goats, deer, hogs, dogs, cats and rats: in New Guinea however, none of these quadrupeds are found, except the hog, and dog,”—and rats also. (*See Pritchard on Man, 135.*)

Now surely if men ever carry animals to desert countries, they would carry the oxen, buffaloes,

\* It is laughable to see Buffon, De Paw, and some *soi disant* philosophers, triumphing over us, because we have no lions, tigers, leopards, &c. as if they were a positive blessing to them, and that we were suffering by this curious partiality of nature, in favour of Asia and Africa. So quiet and peaceably inclined are my countrymen, that we would, *without a pang*, give up our rattle snakes and scorpions, to the kings and slaves of Europe; and content us with our liberty, and the agreeable reflection, that our happy country does not support a single animal that by its fierceness is dangerous or formidable to our industrious agriculturists.

goats, deer, hogs,—perhaps the dog;—But we find only the hog, dog, and rat, in these Islands;—neither could they have swam there, for the hog is notoriously incapable of swimming, and the rat can hardly be supposed to have lived in an ocean, which would prevent the crossing of oxen and buffaloes.—From every view of the subject it appears, that these animals have migrated to these Islands of their own accord; but this they could not have accomplished, unless there had been land over which they could walk; and which once reached from the continent to these islands, wherever they may be found with quadrupeds indigenous to them.

By a strange fatality, all the writers on American zoology have set down with the prejudice, that there was something peculiarly strange and unaccountable in our animals;—they never appear to have once considered the difference, that exist in the zoology of any two or three adjoining countries in the old world; all the wonder was, why there should be animals found in America, and not in Europe or Asia? There is just as much room for surprise and astonishment, in finding animals in South America, which are unknown in the United States, as that there are animals in America taking it generally, which are not found elsewhere.

I have taken some pains in considering this subject, and will endeavour to present the result of some inquiries in such a manner, that the reader may be

able to make a proper comparison between the new and old worlds. We shall also state some examples and illustrations touching the instinct of animals; which perhaps will be able to remove the extraordinary character that our American animals have received; as well as explain some apparent difficulties, that have arisen on the subject.

Let us begin these zoological enquiries by some views of the class MAMALIA. The number of the individuals of this class whose climates or countries are decidedly known, amount to about four hundred and sixty-four.\* (*See Shaw's Gen. Zool.*)

Of this number there are peculiar to

Asia	-	-	-	115	The remaining ninety four are more or less common, that is, they are found in more than one of these five great divisions; we shall notice them presently.
Africa	-	-	-	80	
America	-	-	-	145	
Europe	-	-	-	16	
† Australasia and Polynesia.	-	-	}	15	
				371	

\* The total number of the Class Mamalia, is about 570,---but of this number, 40 are whales, seals, dolphins, &c. which cannot come under consideration; the remaining 66 are land animals, but whose original countries have not been as yet designated,---at least not by Shaw, who is my principal authority;---it is, however, but of little consequence, as this number is composed of individuals of various species of animals, and has no entire genera included in it.

† Australasia, is the Island of New Holland. Polynesia, includes the scattered Islands through the Pacific. Our Researches on Polynesia, have principally been confined to the Sandwich Islands, and the Marquesas; and all the other Islands east of New-Holland, and below the equator.

These animals we say are PECULIAR to each of these geographical divisions ; or in other words, they are exclusively found in those divisions, to which we have affixed the number.

Now instead of wondering why America has animals peculiar to her alone ;—let the zoologist explain the reason, why there are animals *peculiar* to Europe which are not found in Asia ; or peculiar to Asia and unknown to Africa. In this case there are no physical impediments to migration, there are no boundless oceans to pass, there is no deficiency of food, and there are cold, temperate, warm, or hot countries, to travel in ; now what is the reason, that certain animals of the old continent, have restricted themselves to particular portions of Asia or Africa ?

Lord Kaimes, though no naturalist, observed long ago :—“ We learn from experience, that no animal nor vegetable is equally fitted for every climate, and from experience we also learn, that there is no animal or vegetable but what is fitted for some climate ; where it grows to perfection.”

Perhaps this is the best answer that can be made to the question—*We know it from experience*. It is true that instinct directs animals, but so little do we know what instinct is, that we have not been able to define it yet. † We further know, that there are great differences in climate, and even that there are differ-

† Twixt that and Reason ; what a nice barrier,  
For ever sep'rate, yet for ever near.

ences in climates, which though imperceptible to our feelings, are nevertheless injurious or destructive to animals.—Thus the celebrated John Hunter could not, with all his care and attention, make the Virginian opossum breed in England; yet this opossum is found from Canada to Florida, and living equally well and arriving to the same perfection in either place, or the intermediate country.

There is a very great difference existing between adjoining countries, and even under the same parallels of latitude. Mr. Pennant observes,

“If England be divided by a line drawn about Lat.  $53^{\circ}$ , beyond this line nature has allotted to the northern part certain plants, which are rarely or never found to transgress that line to the south;” (these plants make 56 species;) he again remarks, that “notwithstanding none of these plants are found in England, south of the above line, yet most of them are to be found in very southern latitudes on the continent, numbers are inhabitants of Provence, and other warm provinces of France.”

And again,—“almost every one of these plants is found in a climate, very opposite to these countries, bordering on the Mediterranean sea; for there is scarcely one of the plants I have enumerated, which is not found in Sweden, Lapland, or even Iceland.”\*  
(See *Sup. to Arct. Zool.* page 4 to 7.)

\* The great differences that may exist between the productions of adjoining districts;—or even farms,—may be well urged from the history of the Constantia vineyard at the Cape of Good Hope, and also the principal Burgundy vineyards of France.

Hence we see a reason, that if there is such a difference between the vegetable productions of England, there may be just as great differences in the zoology of the two divisions; for instance,—If the particular food of an animal grows above the  $53^{\circ}$  of lat. and not below, it is not surprising that this animal should be unknown in those places, where it cannot procure its favourite food:

What other circumstance will explain the fact, that Pinkerton introduces—(*See Geog. i. 98*):—

“The nightingale, he observes, is not found in North Wales, nor any where to the north (in England,) except about Doncaster, where it abounds, nor does it travel so far west as Devonshire and Cornwall;—this limitation is remarkable, as these birds are found in the severe climate of Sweden.”

Now if these local attachments exist in such small divisions as England, France, or Sweden, what great distinctions must exist between the grand divisions of the earth, such as America, Asia, or Africa.

We will state this subject in another light. The country in which the rattlesnake, or that variety, the *Crotalus Horridus*, is found, extends from near Lake Champlain to Brasil, from the  $44^{\circ}$  north lat. to the Equator,—now the country included between these parallels of latitude, is perfectly dissimilar in its productions, whether in minerals, vegetables, or insects, to any other country on the earth, under the same latitude,—or if, as some philosophers assert, make the allowances that the American climate between the same parallels, with parts of the

old continent are several degrees colder ; then take any climate in the old world, and see if there is not a perfect dissimilarity to the American country, in every production of the soil, and even constitution of the soil itself. How ridiculous then, if this is the fact, to wonder why America has different animals from the old world ?

Why do we not find the various kinds of fish ; which are certainly much more abundant than terrestrial animals, in all the different seas that wash the opposite coasts of Europe, Asia, Africa, and America ; for the element they live in, is much less affected by changes of temperature than our atmosphere, and we cannot say there is any difference in the composition of the waters of the ocean.

We find, however, that some fish are common to two or more continents, but the greater part of them shew a certain local attachment to particular coasts or latitudes, out of which they are never or only rarely found. Hence, there must be some instinct, some unknown influence, which thus directs them to those shores or banks, where they may procure their favourite food or avoid their enemies. Now, if these observations are allowed to be just in the case of fish, they will certainly be more forcible in the case of terrestrial animals, who evidently and certainly shew the same predilection for particular lands, climates, and soils, as fish do for particular shores and coasts.

It was observed in page (59,) that there were ninety-four individuals of the Class Mamalia, which were not peculiar to any one of the five great geographical divisions of the earth. We will now give a table

of these animals, and shew by a comparison how these ninety-four are shared among the above-mentioned divisions.

This will be done by stating the number of animals common to Asia, for instance, and the rest of the world: common to America, &c. It must be premised, that some of these animals are common to all of these divisions; others common to two or three; hence the same animal is counted twice, thrice, &c. accordingly. The real number, however, is no more than ninety-four.

### TABLE

*Of Animals of the Class Mamalia, common to either of the five grand divisions of the Earth, and the remaining four.*

Common to ASIA, and the rest of the world,	89
Do. to EUROPE, &c. . . . .	51
Do. to AMERICA, &c. . . . .	46
Do. to AFRICA, . . . . .	40
Do. to AUSTRALASIA & POLYNESIA, &c.	6

Though these divisions of the earth are well marked and decided for geographers, they are by no means divided into climates, or into such accurate divisions, that any one could tell from a view of the country alone, whether he was in Asia or Europe, or Asia and Africa: Thus the boundaries between Europe and Asia are the Uralian Mountains, and *an ideal line*. It is utterly impossible that the peculiar climate or productions of either Europe or Asia, can

come exactly up to the mountains or this ideal line, and then stop short all at once ; on the contrary, many miles on each side of these boundaries will have the same climate, the same productions, and hence the migrations of certain animals, are not limited to either Europe or Asia.

But America is differently situated ; on the north, migrations are prevented by impenetrable snows and cold, and on the east and west, are two immense oceans,—of course, there is no gradual transition of climate, and productions between America and any other country ; there are no ideal lines, our boundaries are fixed by nature herself, and we may say without the chance of mistake, that this is America, and this adjoining is the ocean.

Of course this table is not accurately just as respects America, when her animals are compared with those divisions of the old continent,—but it cannot be done better, if we were to divide the superficial extent of the old continent into equal divisions, each equal to America—still the very same objections would remain.

But each of these great geographical divisions has certain peculiarities which distinguish them from one another ; that is, there is a *general mean*, in which will be found a difference.

For example ;—Though Europe touches Asia almost entirely from north to south, yet there are but twenty-four quadrupeds common to the two,—yet the animals found in Europe alone—adding those common and peculiar together, amounts to sixty-

seven ; and those found in Asia, adding in a like manner, amount to two hundred and four.

From this table may be seen the futility of the theory, that supposed a separate creation for America, for we see that *there are forty-six quadrupeds common to America and the old world* ; which number is nearly in the same proportion to the number of animals common to Asia and Africa ; or Africa and Europe.

We have stated in the table on page (59,) that America has a much greater number of animals peculiar to her, than either of the other divisions of the earth ; this surely cannot excite surprise, for the superficial extent of America is nearly one-third greater than Asia, the most extensive division of the old world.

Europe, contains . . . 4,456,065 square miles.

Asia, . . . . . 10,768,823 do. do.

Africa, . . . . . 9,654,807 do. do.

America, . . . . . 14,110,374 do. do.

N. B. The extent of Australasia and Polynesia, is unknown.

Then of course, as being of greater extent, America is entitled by right to more animals than either of the five divisions of the globe ; but we have already shewn other causes and circumstances, that either prove or modify the reasons for difference.

#### AMPHIBIA.

We will now pass to another class of animals, which we will exhibit in a different point of view ;—this class is the AMPHIBIA, consisting of the orders,

*tortoises, frogs, lizards, and serpents*,—these animals are, in general, scattered over the whole earth,—and no genera of them appears to be peculiar to any of the five great divisions of the world ; unless we except the *crotalus* or rattle-snake of America ;—Seba, indeed, says, it is found in the East Indies, but late observations have not confirmed his assertion.

These slow and creeping animals are introduced in this place, with the view of proving the connexion that exists between the AMPHIBIA of America and the old world.—Those which will be enumerated, *are not marine* ;—they may in some instances be found in rivers or marshes, but any exposure to the waters of the ocean would be as detrimental to them, as it would be to quadrupeds.—The only questions I shall ask are,—How did these animals arrive in America ? or,—could they reach America in any other way, but by means of land, that once connected the new and old worlds together.

*Animals of the class Amphibia, common to America and various parts of the old continent.*

TESTUDO, or TORTOISE.

Geometrical Tortoise,	Asia, Africa, and America.
Radiated Tortoise,	Madagascar, and Jamaica.

LACERTA, or LIZARD.

Crocodile,*	Asia, Africa, and America.
Guanna,	S. America, E. & W. Indies.
Basilisk,	Africa, and S. America.
Monitory Lizard,	S. America, and N. Holland.

\* I can see no difference between the aligator and crocodile.

Dracena Lizard,	S. America, & Indian Islands.
Marbled Lizard,	East and West Indies.
Azure Lizard,	S. America, and Africa.
Striped Lizard,	Africa, India, and S. America.
Plica Lizard,	India, and South America.

#### OPHIDA, or SERPENTS.

Constrictor Boa,	Africa, India, Indian Is. S. A.
† Cobra de Capello,	E. Indies, and South America.
Milk white Snake,	E. Indies, and South America.
Broad cheeked Snake,	S. America, and E. Indies.
Short headed Snake,	Ceylon, and Brazil.
Lozenge spotted Snake,	E. Indies, and South America.
Æsculapian Snake,	Italy, and South America.
Ornamented Snake	W. Indies, Ceylon, and Java.
Angular Snake,	S. America, and East Indies.
Pelia Snake,	S. America, and East Indies.
Aberdeen slow Worm.	Scotland, and South America.

I refer to Shaw's Gen. Zool. as my authority for the above statement.

#### ORNITHOLOGY.

I have endeavoured to present the subject of zoology in many points of view, as being one of the severest tests that can be applied to the truth of our theory, and it is not so fatiguing to the reader, as if we were to apply the same set of arguments to each of the different branches of zoology ;—the intelligent reader will admit that this could have been done, had we been so inclined.

I have introduced in this zoological inquiry, some observations on ornithology ; principally that of Australasia and Polynesia ; this I have done from the belief, that no theorist has ever supposed that the centre of creation was in these Islands.

† According to Seba. (*See Shaw's Gen. Zoology.*)

On examining the annexed list of birds, it will be seen, that the greater part of them are of short flight; some that cannot fly at all; and others that can fly to great distances; but which prefer these lonely islands, to either America or the old continent. Now, of those birds that *cannot fly* and *cannot swim*, or whose powers of flight are but of moderate calculation, how did they get to New Zealand? or the Sandwich Islands? or to any of the Islands in which they are found?—And of those *who are able to fly to great distances*, why do they confine themselves to these Islands exclusively?

These observations are not confined to individuals of species alone; they include several *entire genera*. Why have these entire genera left the old world? or why have they not flown to America?—These questions can only be answered as we have already done. Our readers must be by this time familiar with our explanations, and we will not repeat them in this place.

*Table of BIRDS that cannot fly or swim, and which are peculiar to certain Islands.*

The *Galeated Cassowary*, is peculiar and confined to Java, Banda, and a few other islands in the Indian Archipelago. (*Latham Synopsis*, v. 11, and *Pennant's Outlines of the Globe*, iv. 8.)

The *New Holland Cassowary*, is peculiar to that Island. (*See Pennant's Outlines*, as above.)

The *Hooded Dodo*,\* is peculiar to the Isles of France, Bourbon, and Roderigues, in the Indian Ocean; this heavy clumsy bird is not only incapable of flight, but walks slowly.

N. B. There may be three species of this bird, they are however all similarly situated. (*Latham's Synopsis*, v. 1.)

TABLE of *Entire Genera of BIRDS peculiar to Australasia and Polynesia, and which are capable of flight.*

Glaucopis or Wattle Bird, Paradise Birds, (15 species)	New Zealand. Solely confined to Papua or New Guinea, and the small neighbouring islands.
Scythrops, or Channel Bill, Sheath Bill,	New Holland. ditto.

\* Latham, see *Synopsis of Birds*, says, this bird must be found elsewhere, because the Portuguese who discovered these islands said there were neither bird nor beast there. It is really strange that a naturalist should make so groundless an assertion. The Portuguese only meant they did not see any; and even if they had asserted there were none, are we to believe it; did they examine every part of these islands prior to making the assertion; but supposing it the fact, how did these birds get there—who carried them? not the Portuguese certainly; or it would have been mentioned; at any rate we would know where it was they were first found, and there would be no ignorance of their real country.

*SPECIES of BIRDS of moderate, or of great powers of flight, and which are peculiar to Australasia and Polynesia.*

Eagles	two.	Cockatoo	four.
Falcons	eight.	†Parrot	three.
Owls	two.	Cuckow	two.
Shrikes	ten.	Starling	one.
Crow	seven.	Thrush	one.
Roller	two.	Colly	one.
Grackle	seven.	Grossbeak	one.
Hornbill	one.	Bunting	one.
King Fisher	seven.	Finch	one.
Nuthatch	one.	Fly Catcher	ten.
*Tody	two.	Lark	one.
Pomerops	two.	Warbler	six.
Bee Eater	fifteen.	Titmouse	three.
Creeper	twenty-nine.	Swallow	one.
Parakeet	twenty-eight.	Pigeon	seven.
Partridge	two.	Tern	five.
Bustard	one.	Petrel	five.
Heron	four.	Duck	six.
Curlew	one.	Penguin	three.
Snipe	one.	Pelican	five.
Plover	four.	Tropic bird	one.
Rail	eight.		

Thus we see that the instinct that first led these Birds to these Islands, also keeps them there—and there is nothing peculiar or strange in it;—this is according to the laws of nature, and is the same thing whether in Europe, Asia, or America. How this instinct acts we will not pretend to say,—but there

\* Buffon asserted that the whole genus, Tody, was peculiar to America.

† Thus far from Shaw's General Zoology. The remaining part of that work not having reached the United States, I have supplied the deficiency from Latham's Synopsis of Birds,—a work many years older.

is nothing more certain or wonderful. Derham, in his *Physico-Astro-Theology*, asks, how these unthinking, untaught creatures, should know the proper time for their passage, when to come and when to go?

In the next place,—that they should know what way to steer their course, and whither to go; what instinct is it that teaches a poor foolish bird to venture over vast tracts of land and sea.—If it be said that by their high ascent up into the air, they can see across the seas, yet what should teach them that another land is more proper for the purpose than this;—that Britain, for instance, should afford them better accommodation, than Egypt, than the Canaries, than Spain, or any other of the intermediate countries.—(*See Physico Astro Theol. ii. 46.*)

I will conclude these Ornithological views, with an observation relative to a peculiarity which I think may be noticed in the birds of Australasia and Polynesia;—this is the considerable number that have wattles,—thus there are the glaucopis, the carunculated grackle, the wattled crow, the wattled bee-eater, wattled creeper, wattled starling, wattled quail, and lobated goose. The domestic poultry, though not peculiar to these islands, are, nevertheless, indiginous—and we might, perhaps, add the cassowary to these wattled birds also.

#### ENTOMOLOGY.

This class of animals might also be arranged so as to support our theory, but we think we have already

exhibited the subject in so many different points of view, that further illustration appears needless.

The inert and sluggish nature of many insects appears, at first sight, to offer many difficulties to a long migration. But it must be recollected that the greater part of these slow and creeping worms and bugs, are merely in their larva or crysalis state ; and which, in course of time, change to winged insects—such as the caterpillar, which changes to the butterfly ;—many of the aquatic insects fly only after nightfall, and will not use their wings in the day light ;—but I subjoin the order of *Aptera*, or insects without wings, from Shaw's Genl. Zool. whence it will be seen, that they are very few indeed, and that from their habits, many of them can be, and are carried by other animals whither they may roam.

#### ORDER APTERÆ.

Lepisma, (*Lepisma*.)

Podura, (*Podura*.)

Termes, (*White Ant*.) the male has wings.

Pediculus, (*Louse*.)

Pulex, (*Flea*.)

Acarus, (*Mite and Tick*.)

Hydrachna, (*Hydrachna*.)

Phalangeum, (*Spiders, known by the name of long legs*.)

Aranea, (*Spider*.)

Oniscus, (*Wood-louse*.)

Scolopendra, (*Centipede*.)

Julus, (*Insects extremely similar to the Centipede, in their appearance*.)

From the foregoing Zoological views and explanations, we think the candid reader must now admit, that there is nothing uncommon or mysterious in the animals of America, which may not be equally well applied to those of Europe or Asia. But this is not the object for which these inquiries were made, and we think it necessary to sum up in this place, the arguments drawn from these Zoological inquiries, that either prove, or tend to prove, that land once existed across the great Pacific Ocean.

We have shewn, that animals, whether quadrupeds and certain birds, such as the *Dodo*, &c. whose conformation restricts them to the ground, and who cannot swim—yet are found on islands very remote from either continent.

We have shewn that there are a number of animals, such as quadrupeds and amphibia, common to America, and various parts of the old continent, that can neither bear moderate cold, and who cannot swim.

We can also shew, that some animals can be traced from the old world, through the islands of the Pacific, and finally to America:

As the *black rat*. (See *Pennant's Arctic Zoology*, vol. i. *Introd.* 173.)

So also the *mouse*. *Ibid.*

We also see, that some animals are found in the old world, and in the islands of the Indian and Pacific oceans, which are not known to exist in America.

As *horses, oxen, &c.* in Europe, Asia, and the island of Java. *Pennant's Outlines of the Globe, vol. iv. 35, 36.* *Chinese hog*, in Asia, New Guinea, the New Hebrides, the Friendly Society Isles, and the Marquesas. *Pennant's Hist. Quad. vol. i. 129.*

And that some animals are common to the islands of the Indian and Pacific oceans, and America, which have not yet been found in the old world.

As the *sloth, ant-eater, opossum, &c.* as, (see our table, page 56.)\*

We think we have now proved, that a way once existed, by which men and animals might pass to America,—and we have also shewn they could not have reached this continent in any other manner. We will now make an attempt to shew, at what time this condition of our globe existed,—and though a bold undertaking, hope we shall be able to throw some light upon the subject.

\* A question may be here asked, why we do not find, according to this theory, a greater number of animals in the islands, which exist in either hemisphere, than the few instances we have been able to show? We answer, that it would be impossible to state what numbers of animals were destroyed by the submersion of land in these seas; nor can we guess at the number that may have been saved on the islands: and as the numerous inhabitants of these islands support themselves altogether by preying on the weaker part of creation, they may have destroyed whole species and genera, that may have once been numerous in those countries; in this way has the *urus, wolf, bear, wild boar, and the beaver*, been destroyed in Great Britain. (See *Arctic Zoology, vol. i. Introd. p. 4.*)

## CHAPTER V.

ON THE TIME IN WHICH THE DESTRUCTION OF LAND  
COMMENCED, &c.

**I**T does not appear natural or probable to suppose that this great destruction of land, which we have so frequently mentioned, was universally accomplished in a day,—on the contrary, ages may have elapsed during this great work;—still, we think that in some cases, the destruction was great and sudden; but it is useless to pretend stating any supposed progress or limitation to it.—We have, however, attempted to throw some light on the chronology of this event, and have ventured to state the time that this destruction may have began, or perhaps was at its height,—the candid reader, however, must make certain allowances, for what may be said upon this chronology.

A considerable time must have elapsed between the deluge and this destruction of land, in order to account for the pretty fair and just allotment of animals, which we find peculiar to the different parts of the earth; which we have proved in page 59, to be the fact;—and we must allow time for the animals of Noah's Ark, to increase to considerable numbers, and time to spread and migrate, to any great distances; for instance, to America.

The same thing is involved by finding men in these very remote islands. (*See our arguments on Islanders.*)

Another circumstance that may assist us in our search for the chronology of this event, may be derived from the explanation of a verse of singular expression, in the Mosaic writings: "He was called Peleg, for in his days was the earth divided."—*Gen. chap. 10. v. 25.*

The manner this verse is explained in the different commentaries on the Bible, is certainly incorrect; for they confound it with the events related of the confusion of language at Babel. The celebrated Bryant was the first who showed there was an evident distinction to be made between the event related of Peleg, and that of the confusion and consequent dispersion of man from the plain of Shinaar. Though we differ from Mr. Bryant's ultimate explanation of the passage, relative to Peleg, yet the arguments, by which he proved the verse in question, was entirely distinct from the confusion at Babel, are so just, that, as far as they go, we shall avail ourselves of his research and opinion.

To show the difference between the event said to have happened in Peleg's days, and that of the confusion at Babel, he remarks, after mentioning from *Gen. chap. x*:

*In the days of Peleg was the earth divided: and the sons of Noah were distinguished in their generations, in their nations, and by these were the nations divided in the earth, after the flood; that this is said*

to have happened, not after the building of the tower, or confusion of speech, but after the flood. But in the history of the confusion at Babel, it is said, "so the Lord scattered them abroad, *from hence* (i. e. from the city and tower) did the Lord scatter them abroad," certainly two different events.

Added to Mr. Bryant's observation, we remark, that it is the *earth* which is said to have been divided in Peleg's days; in the history of the confusion, it is the *people* who were confounded and scattered; two very different relations, the one of human beings, the other of the earth.

The word Babel means *confusion*: the word Peleg is translated *sever* and *divide*.

As the signification of the word Peleg is of some apparent advantage, a minute investigation of it will be entered on.

According to Mr. Bryant, the explanation is, *to sever* and *divide*.

General Valancey says Peleg means *secare in duas partes*.—(See Ousely's *Orient. Col. vol. ii. 332.*)

From the kindness of Mr. Van Vleck, of Nazareth, Penn., I am enabled to give a more diffuse analysis of the word: he wrote me that the verb *Palag*, from which the noun proper Peleg is derived, signifies, in general, to divide something into several parts; more especially considered, it implies, in the first place, *to part asunder, so as to form a passage for something else*, in which sense it occurs in Job, xxxviii. 25. Secondly, *to separate into different parts, which remove into different directions*. The noun itself con-

sidered as a common noun, for as such it occurs in various passages, signifies in general a *stream*, properly of water, &c.

Luther, in his German translation of the Bible, has rendered the passage under consideration thus: "And he was called Peleg, for in his days was the *world* divided." This, Mr. Van Vleck considers as an inadvertence, as in the parallel passage, i Chron. i. 19, he has rendered it, the *land* was divided.

Dr. Clarke, whose commentaries on the Bible are now printing, is also of opinion that a *physical* division of the earth is the most probable explanation.

From the etymology of this word, and the general signification of the expression may we not conclude, that it has no reference to a division of men into nations,\* or to a political division of the earth among them, but to a division of the substance of the earth, of the *world*, a division by which not only continents, but perhaps the greater number of ocean islands were formed.

Nor are we without historic traditions and the opinions of learned men, to support the idea: natural causes greatly strengthen it, and without such an hypothesis, many important circumstances are utterly

\* The most common interpretation of the division mentioned in Peleg's days, is, that Noah divided the earth into states or kingdoms, and assigned them to each of his immediate posterity :....this silly explanation long ago was contested and disproved by Bochart; who thus states his objections; "Sed neque id capio satis, quomodo potuerit Noe inter filios orbem dividere, cujus multo maxima pars nondum erat cognita.... dicis Noam fuisse prophetam, et orbis singulas partes, Dei revelatione sibi notas designasse filiis; sed Scripturâ tacente nostrum non est hæc divinare." (*Phaleg, page 71, Quarto.*)

inexplicable. What has been said concerning Peleg, appears to be considerably strengthened by the observation of an ingenious writer, and a fact related by him. This gentleman, Mr. P. Howard, allows about four centuries from the deluge, (*see his Observations on the Globe,*) for the accomplishing some considerable revolutions in the appearance of the globe. He grounds this belief upon seeing that the age of man was curtailed two hundred years from Peleg's time;\* which is certainly the very probable consequence of bringing a vast body of water to the surface of the earth, which we suppose was occasioned by the sinking of a great part of the terrestrial surface of the globe. This observation of Mr. Howard, coincides with the very point of time that this catastrophe is supposed to have taken place.

The Arabians appear to have a belief of some great convulsions of nature happening about this time—as see their accounts of Salah and Houd (Heber), the cotermporaries of Peleg—in *Herbollet's Bibloth. Orient.*

Bochart observes, SELA Hebrais *emissionem* significat nempe aquarum super terram, ut Job v. 10, *emittit aquas super faciem agrorum*. Itaque paterpius Arphaxad, qui natus erat biennio post diluvium Genes. xi. 10, primogenito suo *videtur* hoc nomen indidisse, ut tan horrend, judicii memoriam refricaret

\* Ages of the Patriarchs according to the Septuagint.

Shem lived	600 years.	Peleg lived	339 years.
Arphaxad	538	Reu	330
Cainan	460	Nahon	208
Salah	430	Terah	205
Eber	564		

apud posteros. Ita Enoch propheta sumus cum prophético spiritu prævidisset cladem illam filii mortem statim subsequituram, vocavit illum *Methusela*. Quo nomine significabat statim illo mortuo futuram emissionem sive aquarum inundationem in perniciem mundi totius.—(See *Bochart's Phaleg*, Chap. xiii.)

Bochart is not the only one who has given this explanation to the name of Methusela;—Bishop Watson observes,—(see *his Tracts*, &c. i. 73,) “It is the ingenious conjecture of Ainsworth, that Methusela is a word compounded of two Hebrew words, Muth and Shalac; one signifying—*he dieth*, and the other *and an emission*, as much as to say *when he dieth there shall be an emission or inundation of waters*.”\*

If these explanations or arguments are correct, we may certainly apply nearly the same reasoning to *Sala*: (who was cotemporary with Peleg)—and with this modification;—that in Sala’s case the emission of waters—*was not attended with a destruction of all mankind*;—as was in the case of Methuselah.

Father Du Halde says, there is in the Chinese annals an account of a great inundation that happened in the reign of Yao, in whose time the real history of China begins, which he says was about two thousand three hundred and fifty-seven years before Christ.

Again, in the Hindoo records, mention is made that the fourth Menu, *Ta-masa*, derived his name from the universal darkness attending a *flood* that happen-

\* Calmet, Lightfoot, and Dr. Clarke, also concur in this explanation.

ed in his time, which is said by the Asiatic Society to have been two thousand four hundred and fifty-six years before Christ.†

Now Peleg was born two thousand six hundred and thirty eight years before Christ, and lived three hundred thirty-nine years; so the dates both of the Chinese and Hindoo floods will fall during his life time.

We have now, from sufficient authority, shown the difference between the confusion at Babel, and the event related of Peleg; and no inconsiderable argument has been brought forward to prove what that event was: an attempt will be now made to show the difference in point of chronology between them, the use of which will be obvious in a future page.

We cannot but support the idea, that the division of the earth which took place in Peleg's days, happened many years after the confusion at Babel. It is true, Peleg's name is mentioned in the chapter preceding the one which relates the history of Babel;

† This story of an universal darkness does not invalidate the tradition! We have authentick accounts of many similar phenomena, which appear to be of an electrick nature. I refer iv. 417, and v. 83, volumes of the Philosophick Magazine, for further support. The Dry Fog of 1783, which spread over the known parts of the globe, and which continued during two entire months, was of this kind. (*See also Ordinaire on Volcanoes, page 131.*)

The deluge of Ogyges was also attended with a great darkness; and very likely belongs to this very same period. In choosing the chronology of this event, I prefer that given by "Varro, the most learned of the Romans," who states it to have been 2009 years before the Consulship of Hirtius; which was about 43 years before Christ. (*See Acad. des Inscriptions, xxxviii. 231.*)

but that is of little weight against our belief. Mr. Bryant, in one part of his work, says, "Many things recorded in Scripture are not introduced according to precise method, and the like is to be found in all writings: thus, in Genesis, an account is given of Canaan in chapter ix, and his generation is not related until chapter x." We find also that Nimrod and Ashur are said to have built eight different cities, in chapter x, yet the confusion at Babel is not related until chapter xi: now, assuredly, the dispersion must have taken place before they began to build these cities: these examples are sufficient to prove, that many things are not related in exact chronological order in the Mosaic writings, and also show that there is no positive authority against our supposing that the event related of Peleg actually happened some years after the dispersion of mankind from the plain of Shinaar. He was born two thousand six hundred and thirty-eight years before Christ, and lived three hundred and thirty-nine years; and as Moses only says the division happened in his days, there is great latitude for conjecture. We should suppose that the expression in his *days*, would certainly remove it to a time when he was advanced in life, and not at his birth: therefore, we are inclined to place it as late in his life, as is reasonable and possible, without forcing or stretching the period, thinking it highly probable that the confusion at Babel happened at or shortly after his birth; the division of the earth, near his death, making a period of near three hundred years between the two events: as may be seen by the following

Chronological Table; which is according to the computation of the Septuagint. (*See Jackson's Chronological Antiquities.*)

*B. C.*

3169—The DELUGE.

2638—BIRTH of PELEG.

2623—Dispersion from Babel.

2323—*Physical division of the earth according to our hypothesis.*

2299—PELEG'S DEATH.

2097—Birth of Abraham, &c. &c. &c.

We think we have proved in the preceding chapters, that a way once existed whereby men and animals might pass to America; and also shown, that they could never have reached this continent any other way. We will now give as much of their history, &c. as may tend to prove they did not pass since the early time that we have fixed on, and which might be at any time during the space of 250 or 300 years after the confusion of language at Babel. Some may declare against so early a migration to America, and say, that men would never wander to such immense distances; that there must have been a famine, &c. from their numbers before they would remove. These circumstances would be of weight in after times, but not at the time we have supposed it to have taken place: for we find the building of the tower of Babel was stopped, and the race of men scattered abroad, by the *intervention of the Deity*; and the

time we have allowed, 250 or 300 years, is surely enough for families, by easy and irregular marches, to have got to America, the islands, and wherever we now find them. It is surprising what an extent of country a rude people will wander over in a short time. Thus it is remarked in the *Cyclopædia*, "The nations of America are very much scattered; in their wars, handfuls of men dispute countries of vast extent; their hostile parties are often hundreds of leagues from one another; but hundreds of leagues are nothing to them."

The very circumstance of finding them almost universally hunters, may be considered as a proof that they were from the first a wandering people; and it is most probable, that they reached America roaming at large, and supporting themselves by the chase.\* We do not say that large bodies of men migrated here; there may have been but a few families, and they scattered up and down the continent.

Before we conclude this chapter it must be observed, there is every reason to believe, that there was one or more small tribes in our continent at that time, inferior to none, left in the old world, in point of knowledge and information; this, however, will be more apparent, when we begin their general history and analysis of their institutions, &c.

\* Lord Kaims observes, and I believe with justice and accuracy, that there is an appetite or propensity to hunting among all men; we observe it in the most civilized people of all classes, ranks, and ages, and hence he infers the reason why there was no shepherds, and very little of agriculture observable among the American Indians;—for the continent being but thinly populated, there was an abundance of game to be procured, and while that lasted, we would never find men leaving the hunter, for the shepherd, or the agricultural state.

## CHAPTER VI.

## PEOPLE OF SOUTH AMERICA, &amp;c.

**T**HE very short history we give of the people of America, is inserted principally to show what accounts they give of themselves. At the same time it must be acknowledged, that these ancient stories, going down accurately to a certain time, viz. the confusion of language, and then relating nothing more that coincides with any ancient history of the old world, is a collateral argument of some force, that these nations must have been separated at the early period we have spoken of, from the old world.

The historical traditions of the northern Indians, are so very obscure and imperfect, and our opportunities of getting information of them by credible writers so slight, that we forbear to say any thing on them. Of the southern, however, we have a considerable knowledge: and to these Indians must we principally have recourse, for the proofs of our assertions.

The works of the Abbe Clavigero are the principal authorities we shall use, and generally in his own language and arrangement. He has given many traditions of the people of America relative to the deluge, and some events soon after. For the satisfaction of

those who may not be able to see Clavigero's works, some of the most striking accounts are given.

The Indians of Cuba told the Spaniards that God created the heavens, earth, &c. ; and that an old man foreseeing a deluge, with which God intended punishing mankind, built a large canoe, and embarked in it with his family and many animals ; that when the inundation ceased he sent out a raven, which, because it found carrion to feed on, never returned. That he then sent out a pigeon, which soon returned, bearing a branch of *hoba* in its mouth. When the old man saw the earth was dry, he disembarked, and having made some wine of the wood grape, he became intoxicated and fell asleep. Whilst in that situation, one of his sons ridiculed him ; the other one, however, piously covered him. The old man upon awakening, blessed one and cursed the other. From the latter they derived their origin.

The Chiapanese say, that a certain *Votan*, nephew of the one who attempted erecting a building which should reach heaven, and which was the place where man received his different languages, went by express command of the Deity, to people South America.\*

\* Let no one say these traditions are inventions of the priests ; no person is more willing than I am to give them credit for similar pieces of ingenuity ; but had they been the authors of these traditions, we should have had a great deal more attached to them,---they would not have known where to leave off,---besides we have no account of saint such a one, or saint so and so ; all this is conclusive evidence to me. Baron Humboldt, in the Paris edition of his works, gives the hieroglyphical representations of these traditions, and gives his opinion that they were the actual belief of the Mexicans.

The traditions of other Indian nations differ considerably from these ; and from this time until their discovery, there is no point of history common to them and the old world.

A concise account of the principal people inhabiting the part of South America which Clavigero treats of, may aid the better understanding of the analysis we propose shortly to make. The first people he notices are the Toltecas. It is pretty nearly ascertained, that they arrived in Anahuac, the country around Mexico, &c. about 648 A. D. They had been banished from their own country, Huehueta-pallan, which Clavigero supposes to be Tollan, situated north-west from Mexico. The editor to Clavigero's works has, with considerable reason, supposed this country to be the western states of the Union. However, the Toltecas wandered about one hundred years before they came to Anahuac.† After some inconsiderable removes they built the city of Tollan, or Tula ; after the name of their native country. This was the most ancient city of Anahuac, and was the capital of their kingdom ; which lasted three hundred and thirty-four years ; during which time, but eight kings reigned, which would be a little strange, did we not know they had a singular law by which their kings should reign neither more nor less than a Toltecan age, or fifty-two years : if he survived this period he was obliged to abdicate the throne, and if he died during the allotted time, the nobles govern.

† Anahuac, according to Baron Humboldt, anciently extended between the 14th and 21st degrees of latitude. (*See Polit. Essay, i. 10.*)

ed in his name for the remaining years. They always had lived in societies, under the dominion of kings, and regular laws, and paid much more attention to the arts than to the cultivation of arms. They understood the art of casting gold and silver, and acquired the greatest reputation for cutting gems. They were either the inventors or reformers of that arrangement of time which was afterwards adopted by the more civilized nations of Anahuac ; and which implies wonderful correct astronomy and numerous observations. They built the highest pyramids of Cholula, in honour of their god, Quetzalcoatl ; and, as is probable, those famous ones of Teotihuacan, in honour of the sun and moon. During the four centuries that their monarchy lasted, they multiplied greatly, built large cities, &c. ; but a dreadful famine and pestilence attacking them, and which nearly destroyed them, put an end to their government. The wretched remains of the Toltecas went to different places, and settled among the nations around ; to whom they imparted the different kinds of knowledge they possessed.

After the destruction of the Toltecas, their country lay desolate about one hundred years ; when the Checehmecas arrived : they also came from the north : their motives for leaving their former country, Clavigero says, is uncertain. These Checehmecas were much more simple than the Toltecas, and much inferior.

Eight years after the Checehmecas were established, six persons, with a respectable number of follow-

ers, arrived. They also came from the northern parts; and a few years after, three princes arrived with a great army of the Acolhuan nation, who formerly lived near the same place that the last mentioned emigrants came from, and also settled in Anahuac. These were the most cultivated and civilized of all the nations since the arrival of the Toltecas. With respect to other nations, settled in Anahuac, every thing is so obscure, that, Clavigero says, after long study he was obliged to put them aside, and despair of ever seeing the obscurity hanging over them cleared away. However, he mentions that the Olmecas, Xicallancas, Chiapanese, and some other tribes, are by some writers considered as ancient as the Toltecas.

The Mexicans seem to have been the last that arrived in Anahuac. They had the same cause for migrating that the others had, but what that cause was is unknown. It appears from Clavigero, that they were actually deliberating about changing their country, when a little bird in singing, used a note resembling a Mexican word, which means *let us go*. This decided the conference, and the Mexicans, with six other tribes or nations, set off together in a very circuitous route, until they arrived in Anahuac. On the way they stopped several years at different places, and built forts, &c. At one place where they stopped, the six tribes left the Mexicans behind: (these were the six that arrived first among the Checehmecas.) They after some time got to Checehmeca, where

they were suffered to settle among other nations, who had migrated thither.

The remaining history of these nations, cannot be of any use in elucidating our subject. We shall therefore pass them over; and, after a short digression, proceed to make some remarks upon their religion, arts, manners, customs, &c.

## CHAPTER VII.

## ANALYSIS OF AMERICAN INSTITUTIONS, &amp;c.

**B**EFORE entering on our analysis of American usages, it may be necessary to make a short inquiry as to the state and advancement of knowledge, institutions, and arts, made by man, previous to the dispersion from Babel. The explanations we shall give, as to the religion, customs, &c. of America, will be more clearly understood by such an investigation.

In the many speculations that have been made upon the early history of mankind ;—we will find it almost the universal opinion,—that our species were at first, rude, ignorant, and barbarous ; indeed, so far has this idea been carried, that the greater part of writers, both ancient and modern, have actually debased the human race in their various disquisitions upon this subject.

By the ancient historians and philosophers, the first men are represented as living in caves, or hollow trees, like beasts ; without clothing, and even without the knowledge of speech.—An accident having however collected a few together, they then for the first time,

discovered the advantages that would result from society and union ;—acting under this impression, they associated,—or perhaps, what agrees better with the theory, they herded together ;—and by slow and imperceptible improvement, they at last became rational, and finally civilized and polished men.

The moderns who have amused themselves with speculating on this subject, do not absolutely begin at a brute state, like the ancient writers ;—yet they differ little from them, by beginning with that condition of mankind, which allows a comfortable subsistence, and the exercise of rational powers ; and from this state is generally detailed the progress of civilization and refinement.

This state of things commences, they say, with the first post diluvian ages,—in which they represent old Noah settled with his family, like a respectable farmer, and with all the simplicity and ignorance of one of our backwoodsmen.\*—His descendants em-

\* In despite of Dr. Clarke, and various other biblical criticks, and commentators, I maintain that my venerable ancestor, Noah, was acquainted with the use of wine before the flood....What did he plant a vineyard for immediately after....? This is one of those trifling passages that many persons have given weight, by thinking it necessary to defend Noah from a charge of intemperance ; and to prove him innocent, they are willing he should be considered a simpleton. Dr. Clarke tells a story of an Englishman being completely intoxicated, by *half a pint of cider !!!* which he considers as an analogous illustration ; and to make the story fit the better, the subject of it is represented as not knowing what cider was !....We cannot disbelieve this narration, as the Doctor was an eye witness ;....but the story would have been more satisfactory, if the *proof* of the cider had been given ;....however, I am willing to compound this matter with Dr. Clarke and the theologians ; for if they will admit that wine was made and used before the flood, I will allow that Noah's intoxication was accidental and unintentional.

ployed as herdsmen or planters ; increasing rapidly, and with their numbers their wants also augmenting ;—from these wants, and by the exertions of some few geniuses that are kindly allowed them, the arts and sciences are said to take their origin, some from the necessities of our nature, and others from contemplation and retirement.

So averse are most writers to admit any knowledge existed in the early post diluvian ages, that those antiquarians, and historians, who have endeavoured to prove the contrary, are generally branded with the names of infidel, and deist ;—the opprobrium of these appellations, will not, however, deter me from making similar inquiries, and of benefiting by the readings and judgment of philosophers, whether scepticks or not ;—they have proved the fact, though they may have erred in the explanation of it.

But surely if the commentators on the Bible, and the criticks, (generally contemptible) who so liberally pour out their invectives against “romancing antiquarians, and deistical philosophers,” had understood the very Bible they so vehemently defend, it would be seen, that both antiquarians and philosophers had great reason to believe what they wrote, and that their opinions when examined, contain not only things unoffensive to the Mosaic writings, but also that they exhibit very strong proofs, in support of these very books,—and which may be seen in many parts of this Essay.

But let us return to the consideration of our subject ;—When we read that the descendants of Cain,

before the deluge, had discovered the art of *working metals*; that they had invented various *instruments of musick*; and that they also built and lived in *cities*, it can hardly be called a gratuitous supposition to believe, that numerous other arts, were either in a state of perfection, or advancing towards it.

The building of *cities*, alone infers a multitude of arts, and the construction of the harp and organ, not only shews refinement, but requires great accuracy, great mechanical skill and ingenuity.

But *cæteris paribus*;—let us compare the antediluvian ages, with after ages.—In point of time the first amounted to 2257 years;\* and the numbers of men far exceeded those at present,—the amount destroyed by the deluge alone, is supposed to have been upwards of 13,743,895,000,000, (*see Art. Antediluvian Cyclopedia*,)—whilst, according to the best computations, in the year 1800, the number of our species then only amounted to 700,500,000. Now, with the above vast numbers, and with the world in the state that it was first tenanted by man, it would surely be unreasonable not to suppose, that some of the antediluvians would be as wise as any of their descendants;—Did the arts owe their origin to the necessities of our nature? The superiour numbers of the antediluvians certainly then gave them the advantage over us.—Did the sciences originate in tranquillity, solitude, or society?—They had at least equal

\* According to the Septuagint; which system of chronology is universally used in this Essay.

opportunities with us. Or was knowledge imparted by intuition or revelation? If so, they had the advantage over us;—for we have no accounts that this was done to the post diluvians, and the theories of writers unanimously deny it.

Well then, after thus inquiring, we find that there is great reason to infer, that the antediluvians were not only as wise and learned as ourselves;—but it might be even said, that they surpassed us.

But the most incontestible proof of antediluvian knowledge, is furnished by the science of astronomy.—This fact is completely and accurately demonstrated by the learned and ingenious professor Playfair, in the second volume of the Transactions of the Edinburgh Society.—This observation arises from his examination of the astronomical tables of the Bramins; which he shews, coincides with the era of the Cally Youg,\* 3102 years before Christ.—This era, he shews, must have been ascertained *by actual observation*; and to enable persons to have made this observation, astronomick knowledge must have been sedulously attended to 1200 years earlier, (*that is, 1100 years before the deluge.*) The construction of these tables, he adds, imply a great knowledge of geometry, arithmetick, and even of the theoretick parts of astronomy;—that those who framed them, must

\* See Appendix for account of the Cally Youg, where we have given a succinct view of the controversy that has been carried on by astronomers, respecting it.

have possessed a calculous equal to trigonometry ; and that, upon the whole, it appears there existed at that period, a body of science really astonishing.

We will put this subject in another point of view, by shewing some fragments of astronomical knowledge, that we either know, or believe, to have been made since the flood ;—even taking this for granted, it will appear that astronomy was cultivated, and scientific observations were made, at periods so shortly after the deluge, that no progress of the human mind can be supposed equal to the acquirement of such a degree of knowledge, *in so short a space of time, as that between the flood and the time that these observations were made ;* and especially so, when we are informed by all writers, that astronomy was first cultivated by herdsmen and shepherds.

“ All the proofs that might have fixed the rise of astronomy among the Egyptians, are lost,” says the learned Bailli, “ except one ;—which is to be found in the Kalendar of Ptolemy, and which seems to have the force of a demonstration,—and that is the heliacal rising of Sirius, which Ptolemy fixes at seven different dates—viz. the 4th, 6th, 22d, 27th, 31st and 32d days, after the summer solstice ;—now the earliest of these dates which fixes this emersion at the fourth day after the solstice, answers, when we consider the climate of the Higher Egypt, to the year 2550, B. C.—( See *Monthly Review*, on *Bailli's Hist. Ast. liv. 521.* )

“ It is apparent that the astronomy of the Chaldeans, Indians, and Chinese, was the result of the ob-

servations and researches of a people antierour to them; who having suffered by some great revolution, the fragments of this knowledge in a shattered state, descended to the Chinese, Hindoos, and Chaldeans. Bailli was confirmed in this opinion by a circumstance of great weight, and that is, *among these nations astronomy has made little or no progress, and has not advanced one step towards perfection.*

“Hence we find,” observes the same author, “among the Hindoos, considerable numbers of precepts without any explication; and among the Chinese, a number of periods of which the advantages were unknown; and which were the unconnected remains, rather than the elements of astronick science.”†—(*See Monthly Review, as before.*)

When Alexander the Great took Babylon, (about 326 years before Christ,) Calistines, on inquiry of the priests of Belus, found that they had a series of astronick observations extending back for a period of 1900 years, written or engraved on tiles.—This account is a probable one, according to Long, the astronomer,—and it carries us up very near to the period of the general dispersion of mankind.—(*See Maurice's Anct. Hist. Hind.*)

Thus we have shewn, as we before stated, that *scientifick observations* were made so shortly after the

† Though considerable exertions have been made by the author of this Essay, to procure Bailli's Hist. Astron. he has never been fortunate enough to accomplish his wish;...the only opportunity he has had of benefiting by the learning and talents of that great astronomer, has been through the Monthly Review, as quoted in the text.

deluge, that it is an impossibility to suppose men capable of making *such observations*;—unless it was done by means of instruction, from antediluvian research and experience.

The important and useful art of writing, it is highly probable, was known to the antediluvians; and as it is so curious a subject, and as there is no impiety in such an investigation, this subject shall be examined.

According to the Chaldeans, they were instructed in the use of letters by an imaginary, or symbolical being named Oannes. I say symbolical, from respect to Bryant, who says this Oannes was a type or emblem of the ARK.

The Egyptians said, letters were invented by Taut, or Tauth; a divinity, generally believed to be the same as Mercury; and he is, according to Bochart, and apparently with reason, the same as *Chanaan*. (*See Phaleg. Lib. i. chap. 2.*)

The Chinese ascribe the origin of letters, to their god Fo-hi; who is generally allowed to be *Noah*.

Some writers, however, think that letters were first revealed to Moses, and the Jews, from Mount Sinai;\* the grounds of this belief is founded in the idea, that if mankind had previously known the use of letters, they would never have employed the imperfect and uncertain means of hieroglyphicks; but

\* Writing in a book is mentioned in Exodus, xvii. chap. 14 verse, preceding the delivery of the law from Mount Sinai. And also Job, xxxi. chap. 35 verse. For this observation I am indebted to Judge Cooper's Introductory Lecture on Chemistry. Page 103.

we know (*See Rees' Cyclopaedia,*) that hieroglyphicks continued in use among the Egyptians, long after letters had been discovered; and when we understand the fact, that knowledge in those times was kept in the custody of the priests, we need not wonder at the reasons that kept the use of letters down, and preferred hieroglyphicks. The ancients inform us also, that letters or characters were in use among the Egyptians, and that they were chiefly used in writing letters of state; and it was hence called epistolary writing. However, as soon as letters became more common, the priests, as we might readily expect, immediately invented a mysterious alphabet for their own use; which was called *sacred!* and hierogramatical.

Bishop Warburton, argues against the idea that letters were first revealed at Mount Sinai, and says: that considering the importance of letters among the Hebrews, with respect to the integrity of their religion,† if God had then been the immediate author of them, Moses would have recorded the history of their invention as the best sanction to their use, and best security from the danger of hieroglyphick writing; to which this people, so fond of Egyptian manners, were powerfully inclined. (*See Divine Legation of Moses, ii. 124.*)

† I do not think there is a stronger argument in support of the authenticity of the Pentateuch, than the fact of its being originally written in alphabetical characters. If the priests had been the inventors of these books, they would have wrote it in a hierogramatical character, or in hieroglyphicks, to have kept the subject from being understood.

Sir Isaac Newton was of the opinion, that Moses was instructed in writing by the Midianites.

On this diversity of opinion, relative to the origin and invention of letters, it may be remarked, that no other opinion than the one ascribing them to the antediluvian, or first postdiluvian patriarchs, can be supported; and though this opinion cannot be satisfactorily demonstrated, yet it is by far the most probable; I know of no argument against it.

Having thus shewn the grounds for believing the antediluvians to have been intelligent, rational, scientifick, and ingenious; I shall now apply this result to explain a difficulty that has long embarrassed antiquarians, and historians, in their speculations upon the resemblance of the ancient nations to one another, in point of science, knowledge, and religion.

There were eight persons who entered Noah's ark, all adults, and some of them who had lived two or three centuries. We cannot suppose that they forgot or disregarded the arts and conveniences of life, known prior to the flood; especially, when we have already shewn, that they did not forget the scientifick knowledge of that period. They of course retained a considerable portion of important and useful knowledge; and believing they were to restore the human race, and re-people the world, they would *assiduously attend to the preservation of knowledge*, if they at all resembled the intelligent men of this day, and which no doubt they did.

And we have seen that the most ancient nations refer the invention of letters to their gods; who ap-

pear to have been, originally, the first postdiluvian patriarchs. If this is the fact, and I see no reason to doubt it, it would be in the power of Noah and his family, to retain and preserve, *a great deal* of antediluvian knowledge.

This knowledge, preserved from the ruins of the antediluvian world, was imparted to the posterity of Noah's family ; and speaking but one language, until the time of the dispersion, the facilities of acquiring knowledge and information were undoubtedly great, and may have been pretty universally diffused among mankind. During this period, the depravity of man, forgetful of the late awful catastrophe, again began to display itself ; and in less than five hundred years from the time of the deluge, idolatry appears to have acquired such an ascendancy, that men began to make gods, and build altars and temples to them. The tower of Babel, is by most commentators, considered in this light ; and which is, I think, the most likely and probable explanation.†

We have great reason, indeed, to infer this, from the knowledge we have of events afterwards ; for we find Belus, whom all agree was a son of Ham, if not Nimrod himself, promoting the study of astrology, (or superstition) in order to encourage a faith in predictions, which he knew how to apply to political purposes. (*See Rees's Cyclopædia, Art. Belus.*)

† It might be also a mark or beacon, a sign or name, or an astronomical observatory ; as we well know the ancient temples of Egypt, Chaldea, Hindostan, and Mexico, were applied to similar and various other purposes.

The establishment of idolatry in Babylon afterwards, and the worship of Belus in this very tower of Babel, must be considered as a collateral argument of some weight.

The principles of *this ancient idolatry*, most probably were founded in a rational Theism ; at least it is reasonable to think so from the sacred writings of the Hindoos, Persians, Chinese, and even the Mexicans and Peruvians ; which all contain many pure moral inculcations. The grossness observable in more modern idolatry, appears to have been the combined result of artifice, superstition, alegorical ceremony, but principally from slavery ; that is, religion and superstition were employed as the engines of tyranny and usurpation. Pope, has detailed the progress of despotism and superstition, so exactly with my views, that I have introduced the extract in a note, as an illustration.\*

\* Force first made conquest, and that conquest, law,  
 THEN superstition taught the tyrant awe,  
 Then shared the tyranny, then lent it aid,  
 And gods of conqu'rors, slaves of subjects made :  
 She 'midst the light'ning's blaze, and thunder's sound,  
 When rock'd the mountains, and when groan'd the ground,  
 She taught the weak to bend, the proud to pray  
 To powers unseen, and mightier far than they :  
 She from the rending earth, and bursting skies,  
 Saw gods descend, and fiends infernal rise :  
 Here fixed the dreadful, there the blest abodes,  
 Fear made her devils, and weak hope her gods ;  
 Gods partial, changeful, passionate, unjust,  
 Whose attributes were rage, revenge, or lust ;  
 Such as the souls of cowards might conceive,  
 And form'd like tyrants, tyrants would believe.

The reader is considered as now being prepared for the following opinion, viz :—That prior to the dispersion, the adoration of the heavenly bodies, and the deification of men had commenced ; and that about the time of the building of the tower of Babel, there was a tolerably regular form of idolatrous worship established among mankind ; the striking principles of which were the foundation *afterwards*, of the religious systems of Chaldea, Persia, Egypt, Hindostan, Mexico, &c. and in fact of all the world.

This opinion will not seem so hypothetical, when it is known to be a certain fact, that the ground work of the different systems of idolatry, of ancient knowledge, or of ancient institutions, is the same throughout the world, notwithstanding the many circumstances that might induce us to think the contrary ; such as the distances between many nations, or their self pride, or contempt of one another.\*

Zeal then, not charity, became the guide  
And hell was built on spite, and heaven on pride.  
Then sacred seem'd th' etherial vault no more ;  
Altars grew marble then, and reek'd with gore :  
Then first the Flamen tasted living food ;  
Next his grim idol smear'd with human blood ;  
With heaven's own thunders shook the world below,  
And play'd the god an engine on his foe.

*Essay on Man, Epist. 3d, line 245.*

\*In proof that a great and striking similarity does exist between the religion of most nations, reference is given to Bryant's Analysis of Ancient Mythology, Asiatic Researches, Valancy's History of Ireland, Maurice's Indian Antiquities, La Mythologie Comparee, avec L'Histoire, Sir William Jones' Works, Ousely's Oriental Collections, Graham's Letters on India, Mallet's Northern Antiquities, Des Cultes Anterieur a L'Idolatrie, Vallancey's Irish Grammar, Humboldt's Re-

When we find a people with some of the ideas, customs and religious ceremonies of Egypt, with some mysteries thought peculiar to India, and some of the superstitions of Persia, &c. blended together with others common to all, and some entirely novel to them, we can hardly carry credulity so far as to suppose all these different nations aided in forming those, whom they are utterly ignorant of, and when nature herself has placed, in some points, an insurmountable barrier between.

This resemblance of nation to nation, has seemed inexplicable. Authors, in their attempts to account for it, have attributed all knowledge, institutions, and inventions, to one people, and deriving the information of other nations from them. Hence lord Bacon's idea, that the Persians, Egyptians, Phœnicians, &c. had received their knowledge from some nation antierior to them. And we have seen numberless attempts, that have been made to prove all learning and knowledge emanated from Chaldea, or Phœnicia, or Egypt, or any country, which learning or prejudice chose to support.†

searches, &c. &c.—and as further proof of the fact, we well know that the Romans found their gods under different names, in every country they visited; hence they said—this is the Gaulish Mars—this the Tyrian Hercules—this the Sidonian Venus, &c.

† The attempts that have been made by philosophers to account for the similarity of knowledge existing between different parts of the world, and their attempts to trace the nation diffusing this information, have been so numerous, so hypothetical, and unsatisfactory, that no clearer proof can be given of the futility of such attempts, than their great number, many as ridiculous as the burlesque account of the monies in Swift's and Pope's Miscellanies.

The celebrated Bailli supposed that a race of Tartars in Asia, were the inventors of almost every thing learned or useful, and that through them it was imparted to the rest of the world.

There is a work in French, entitled *Histoire des Hommes*, which gives the honour of all these discoveries or inventions to a race called Atlantians, of whom we scarce know more than their name.

It has been supposed that Hindostan furnished the rest of the world with this knowledge and learning, from the great reputation in which the bramins of India were held by the sages of Greece or Rome.— This opinion is indirectly supported in that very valuable work, the *Asiatic Researches*.

The very learned Bryant has given the world a large and erudite work on this subject, in which he ascribes to the family of Cush the invention of ancient religion, arts, and general science.

In all these opinions, however, there is so much improbability, that we cannot give our assent to any one. The idea of one family or nation travelling over the widely extended countries of the earth, teaching and instructing mankind in every thing respecting religion, arts, &c. is not only improbable, but impossible. Had this ever been the case, we should have positive and certain information of it; we should also find a resemblance not in the act, idea, and performance, only, but in the name, and especially in technicals. But we find mankind universally referring the inventors of arts, science, and knowledge, to those ages shortly after the deluge, remounting to the great-

est antiquity, and thus proving the impossibility of any one people either acquiring or being able to instruct mankind in so short a time.

Taking the same liberty with the subject that other writers have done, and on which the learned may decide, we suppose, that a regular system of idolatry, and a considerable degree of knowledge in science, and arts, was known, and was common to mankind, previous to their dispersion\* from Babel: and the further we proceed in our intended analysis, the more reason will be seen for maintaining this opinion.

We do not pretend to say, that a nation never borrowed religious rites, customs, &c. from other nations; far from it; it is only said, that they did not borrow the fundamental and leading principles of their manners, habits, or religious institutions, from one another.

Pursuing our subject: when the Almighty confounded the language of mankind at Babel, and obliged them to scatter over the earth, the same ideas of religion, the same arts, knowledge, manners, &c. were common to all; and these were carried to the different parts of the world, to which providence directed particular tribes or families.

By this opinion we shall be able to account for the fact admitted by Baron Humboldt and others—and

\* Since the first edition of this Essay was printed, I have met with General Valancey's Irish Grammar, in which I have found, that Doctor Borlase, in a History of Cornwall, which I have never seen, accounts for the diffusion of knowledge among mankind, almost precisely on the system we have maintained in this Essay.

which, hitherto, has been deemed inexplicable. "If we go back to the early ages," says Baron H. "History marks several central points of civilization; *of the mutual relations of which, we are ignorant*, such as Merœ in Egypt, the Banks of the Euphrates, Hindostan, and China." (*See Humboldt's Researches, octavo, i. 48.*)—We will hereafter prove, that America is similarly situated, with respect to these ancient centres of civilization;—for the present we will give Baron Humboldt's authority as to the fact.

"We are astonished to find, that towards the end of the fifteenth century, in a world which we call new, ancient institutions, religious ideas, and forms of edifices, similar to those in Asia, which there seem to go back to the dawn of civilization."—(*Humboldt's Introd. to the Descrip. of the Monuments of America, page 1st.*)

It is singular, that sir William Jones did not use this theory in accounting for this similarity in religion, learning, &c. observable in so many diffused nations of the earth. He was embarrassed how to explain the fact, and yet has this remarkable sentence in his essay: "That the Hindoos, Old Persians, Ethiopians, Egyptians, Phœnicians, Greeks, Tuscans, Scythians or Goths, Celts, Chinese, Japanese, and *Peruvians*, had an immemorial connexion with one another; and as there appears no reason for believing that they were a colony from any one of those nations, or any one of those nations from them, we may fairly conclude that they all proceeded from the same

common central country." (*See Asiatic Researches, vol. i. 430.*)

This common central country, he thinks, was IRAN or PERSIA; which he considers as comprehending Chaldea, Assyria, Persia, and the greater part of lesser Asia.

It may be asked, why then do nations differ so much in their religious systems, if having one common origin. It is answered, that as idolatrous worship is taken almost wholly from objects before our eyes, when we remove to other situations, where we have not those appearances, and objects, that gave rise to particular customs, we endeavour to suit them to the present face of things, or some would drop them entirely, others would retain them, though they forgot to what superstition they arose from. The observance of particular phenomena, in some countries, would give rise to some additions in their worship.

But on a minute inquiry, we do not find a great or material difference in point of religion, &c. and the more we search into the subject, the truth of what we have advanced, as to their being of one common origin, will be the more apparent.

We will conclude this part of our dissertation, with an observation of Lord Kaimes upon the *effect*, that the confusion of speech and dispersion from Babel, had upon mankind.

"That deplorable event," he observes, "reversed all nature, by scattering men over the face of the earth, it deprived them of society, and rendered them savage. From that state of degeneracy they have

been emerging gradually.—Some nations stimulated by their own nature, or by their climate, have made a rapid progress; some have proceeded more slowly, and some continue savages.”\*—(*See Sketches of the Hist. of Man, i. 83.*)

\* And if one nation or people possessed or retained more knowledge, learned men, or even priests, than another tribe or nation;—we at once perceive another cause for the difference in degree of knowledge between nations, when history first presented her page to the world.

## CHAPTER VIII.

## ON THE MEXICAN RELIGION.

IT is observable in the history of mankind, as well the refined, as the more rude and unpolished, that whilst their government, science, and arts, are changing or improving, that we still find them bigotedly adhering to the religious superstitions taught them through their ancestors. In all researches like the present, the religion of a nation is of the greatest moment, and more important conclusions may be drawn from that source than from any other ; on this account, we shall consider it in the first place.

The Mexicans had some ideas of a supreme God, absolute and independent, whom they regarded with fear and adoration ; they did not represent him by any visible form ; calling him *Teotl*, or God, to whom they applied expressions highly characteristick of his nature.

They also believed in an evil spirit, whom they called *Tlacatecolotl*, or rational owl.

They had three places for the souls of departed mortals : those who died in battle, or in captivity with

enemies, and women in labour, went to the house of the sun, where they led a life of unbounded delight and pleasure. They supposed that after four years had passed in this happy state, the souls then went to animate clouds, and birds of beautiful feather. The Tlasca'ans believed the souls of persons of rank tenanted the bodies of nobler animals, than those of the plebeians, who were supposed to pass into weasels, beetles, and the more insignificant animals.

Those who were drowned, struck by lightning, died of dropsy, tumours, &c. went along with the souls of children, at least those sacrificed to Tlaloc, (god of water,) to a cool and delightful place, called Tlalocan, where that god resided, and where they were to enjoy the most delicious repasts, with every other kind of pleasure and gratification.

The third place, allotted for the souls of those who suffered any other kind of death, was called Mictlan, or hell; which they supposed was a place of utter darkness in the north, or, as others say, in the centre of the earth.

The most striking part of this belief is the metempsychosis; which doctrine, we have reason to think, is of very great antiquity; for Maurice says, from the Ayeen Akbery, that it can be found in the earliest writings of the Hindoos, which are as old as the Pentateuch of Moses.

Transmigration of souls was also taught by the Druids of Great Britain.

The Persians and Egyptians also taught this doctrine.

The Otaheitans had a kind of Paradise very much resembling the *Tlalocan* of the Mexicans—for they said that those persons who are drowned in the sea, remain there,—where they think is a fine country, and every thing that can make them happy.—(*See Cook's Voyage, v. 1648.*)

The Mexicans had thirteen principal deities, to whom they consecrated that number. We will give an account of the principal gods, in their proper rank and order, as is detailed by Clavigero.

#### TEZCATLIPOCA,

Was the greatest divinity adored in these countries, after the invisible God, *Teotl*. His name means *shining mirrour*, from one that was affixed to his image. He was the god of providence, the soul of the world, creator of heaven and earth, and master of all things. They represented him always young, to denote that no length of time ever diminished his power. They believed he rewarded or punished men, according to their merits. They placed stone seats at the corners of streets, for him to rest upon, on which no one was allowed to sit. It was said that he descended from heaven, by a rope made of spider's web. His image made of teotl, or divine stone, (a black and shining stone,) was richly dressed, adorned with gold ear-rings, and from the under lip hung a crystal tube,

within which was a green feather, or a turquoise stone : his hair was tied with a gold string, from the end of which hung the figure of an *ear*, made of the same metal, with the appearance of smoke painted on it, by which they intended to represent the prayers of the distressed : the whole breast was covered with gold ; upon both arms were bracelets of gold ; an emerald in the navel ; and in his left hand a golden fan, set round with beautiful feathers, and polished like a mirror, in which they imagined he saw every thing that happened in the world. At other times, to denote his justice, they represented him sitting on a bench, covered with a red cloth, upon which were drawn the figures of skulls and other bones ; upon his left arm a shield with four arrows, and his right lifted in the attitude of throwing a spear ; his body dyed black, and his head crowned with feathers of the quail.

We might here make some comparisons between this deity and some others in different parts of the world ; but it would engross more time than such a comparison would deserve ; we shall therefore only remark, that black is one of the favourite colours of idols in many parts of the earth ; thus the terrible goddess Calli of the Hindoos : and Jugernaut, is made of a rude unfigured black stone, among many other instances which might be mentioned.

## OMETEUCLTI AND OMECIHUATL.

The former was a god, and the latter a goddess, whom they believed dwelt in a magnificent city, in the heavens, abounding with delights, and there watched over the world, and gave to mortals their wishes, the first to men and the other to women. They had a tradition, that this goddess, having had many children in heaven, at one time brought forth a knife of flint; upon which, her children in a rage threw it to the earth; from which, when it fell, sprang 1600 heroes! who, knowing their high origin, and having no servants, (for all mankind had perished by a general calamity) sent an embassy to their mother, to entreat her to grant them power to create men to serve them. She told them to go to Mictlanteuctli, god of hell, and ask of him one of the bones of those men who had last perished, which they were to sprinkle with their blood; and from it they would have a man and a woman, who would multiply. Xolotl, one of the heroes, went to hell, and got the bone; but from fear that Mictlanteuctli would repent giving it, (which he actually did,) made such precipitate haste, that he fell, and broke the bone into two unequal parts, which accounts for the difference in stature among men. However, he gathered the pieces up, and returned with them to his brothers, who put them in a vessel, and sprinkled them with their blood, drawn from different parts of the body. On the fourth day, they beheld a boy; and continuing to sprinkle with blood for three days more, a girl was made; they were then both consigned to the care of Xolotl, to be

brought up, who fed them with the milk of thistle : from this ceremony, they say, originated the practice of drawing blood from the different parts of the body ; an act of devotion which continued an essential part of the Mexican ritual.

There is some reason to believe this story had a similar origin with the one related of Deucalion. To show the similarity, a sketch of the Greek fable is given. Deucalion and his wife were saved from an universal deluge, and after the waters had subsided, the oracle was consulted, to know how the earth should again be peopled. The answer was, that they should throw the bones of their ancient parent over their heads. This kind of sacrilege afflicted Pyrrha considerably, for she took it in the literal sense. But her husband, by a quibble, said it must mean their ancient parent, the earth ; and that they were to understand stone, by the word bones. They, therefore, tried this experiment ; and as the stones fell to the ground, men and women were produced.

Deucalion is undoubtedly a personification of Noah. See Lucian's *Dea. Syria*, where he says, " The Greeks, indeed, call him Deucalion ; but the Chaldeans, Noe ; in whose days happened the great irruption of waters."†

† See also Bochart's *Phaleg*, page 100.

The conformity between the two traditions is striking : for in both there had been an universal destruction of mankind ; and the present race of men were produced from rock. The Mexicans, indeed, go somewhat further, and produce men from the bones of those who had perished in the general calamity. But if we recollect, that the answer given by the oracle was so ambiguous, that it might mean either stone or bone, and that Pyrrha took it in this latter sense, we find this apparent difference vanishes.

It is a very curious circumstance, that we find so many allusions to stone, related of this event. Mr. Bryant says, Niobe is often mentioned as a person concerned with the deluge, or at least is often introduced with persons who had an immediate reference to it.

The Quarterly Review, vol. ii. for 1809, p. 36, mentions a tradition of the Society Islands, which attributes the origin of man to a rock.

The inhabitants of the Ladrone Islands, and the Massachusetts Indians, also ascribe the origin of man to rock.

#### CIHUACOHUATL, (*Woman Serpent.*)

This deity, the Mexicans believed was the first woman that had children, and she always bore twins.

Baron Humboldt makes the following observations upon this goddess, and the serpent that always accompanies her:—"We here think we perceive the Eve of the Semetic nations; and in the snake cut in pieces, the famous serpent Kali-ya, or Kali-naga, conquered by Vishnu; behind the serpent who appears to be speaking to the goddess Cihuacohuatl, are two naked figures of boys; they are of a different colour, and seem to be in the attitude of contending with one another."—(*See Humboldt's Researches, i. 195.*)

#### TONATRICLI AND MEYTLI,

Were the names of the sun and moon, both deified by the Mexicans, and other nations of Anahuac. They said, that after the regeneration and multiplication of the human race, by the 1600 heroes, there was no sun; for the one that formerly existed, was destroyed by the calamity we have just noticed, in which mankind perished. The heroes, therefore, assembled in Teotihuacan, around a great fire, and said to the men, that the first of them who would throw himself into the flames would have the glory to be transformed into a sun. One of the men, more intrepid than the rest, called Nanahuatzin, threw himself into the flames, and descended to hell. During this time, the heroes were betting, as to what moment, and in what part of the heavens, the sun would first

appear : these bets, as soon as lost, were sacrificed ; and consisted of quails, locusts, &c.

At length the sun rose in that quarter, which, from that time, has been called the Levant. But he had scarcely risen above the horizon, before he stopped ; which the heroes perceiving, sent to him to desire he would continue his course. The sun replied, he would not until he should see them all put to death. The heroes were no less enraged than terrified by that answer ; upon which, one of them taking his bow and three arrows, shot one at the sun ; but the sun saved himself by stooping. After several ineffectual attempts, the sun, enraged, turned back one of the arrows that had been shot at him, and fixed it in the forehead of that hero, who had first drawn his bow against him, and who instantly expired.

The rest, intimidated by the fate of their brother, and unable to cope with the sun, resolved to die by the hands of Xolotl ; who, after killing his brothers, put an end to his own life. The heroes, before they died, left their clothes to their servants : and since the conquest by the Spaniards, certain ancient garments have been found, which were preserved by the Mexicans, with extraordinary veneration, under a belief that they had them from those ancient heroes.

They told a similar fable of the origin of the moon. Another person, at the same assemblage, following the example of Nanahuatzin, threw himself into the fire ; but the flames being somewhat less fierce, he turned out less bright, and was transformed into the moon.

To these two deities they consecrated those two famous temples, erected in the plain of Teotihuacan, of which we will speak in another chapter.

QUETZALCOATL, (*Feathered Serpent*,)

Was among the Mexicans, and all other nations of Anahuac, the god of air. He was said once to have been high priest of *Tula*. They figured him tall, big, of a fair complexion, open forehead, large eyes, long black hair, and a thick beard. From a love of decency, he wore always a long robe. He was so rich, that he had palaces of gold, silver, and precious stones. He was thought to possess the greatest industry, and to have invented the art of melting metals and cutting gems. He was supposed to have had the most profound wisdom; which he displayed in the laws he left to mankind, and above all, the most rigid and exemplary manners. Whenever he intended promulgating a law to his kingdom, he ordered a crier to the top of the mountain *Tzatzitepec*, (hill of shouting,) near the city of *Tula*, from whence his voice was heard for three hundred miles. At this time the corn grew so strong, that a single ear was a load for a man; gourds were as long as a man's body; it was unnecessary to die cotton, for it grew naturally of all colours; and all other fruits were in the same abundance, and of the same extraordinary size; then, too, there was an incredible number of beautiful and sweet singing birds. In a word, the Mexicans imagined as much happiness under the priesthood of Quetzalcoatl, as the Greeks did under the reign of

Saturn, whom this Mexican god also resembled by the exile he suffered. Amidst all this prosperity, Tezcatlipoca, their supreme but *visible* god, (we know not for what reason,) wishing to drive him from that country, appeared to him in the form of an old man, and told him it was the will of the gods that he should be taken to the kingdom of Tlapalla; at the same time he offered him a beverage, which he readily accepted, in hopes of obtaining that immortality after which he aspired: he no sooner drank it, than he felt himself so strongly inclined to go to Tlapalla, that he set out immediately, accompanied by many of his subjects. Near the city of Quauhtitlan, he felled a tree, with stones, which remained fixed in the trunk; and near Tlalnepantla, he laid his hand upon a stone, and left an impression, which the Mexicans showed the Spaniards. Upon his arrival at Cholula, the citizens detained him, and made him take the government of their city. He showed much aversion to cruelty, and could not bear the mention of war. To him, the Cholulans say, they owe their knowledge of melting metals, the laws by which they were afterwards governed, the rites and ceremonies of their religion, and as some say, the arrangement of their seasons and calendar. After being twenty years in Cholula, he resolved to pursue his journey to his imaginary kingdom of Tlapalla; carrying along with him four noble and virtuous youths: but on arriving at the maritime province of Coatzacoalco, he dismissed

them, and desired they would return to Cholula, and tell them he would return to comfort and direct them. The Cholulans, out of respect to Quetzalcoatl, put the reins of government into the hands of these young men.

Some said, this venerable person suddenly disappeared ; others, that he died upon the coast. However this may be, he was consecrated as a god, and worshipped in many places. The Cholulans preserved, with the highest veneration, some small green stones, well cut, which they said belonged to him. His festivals were great and extraordinary, especially in the divine years, and were preceded by a fast of eighty days. They said he cleared the way for the god of waters ; because in these countries rain is generally preceded by wind, &c.

By Quetzalcoatl, is probably meant Noah ; and though the tradition is considerably confused Clavigero has, from some traits in his history, ventured to make a slight comparison between him and Saturn, who is universally understood to be the same as Noah.\* But the principal reason we have for this assertion is, that we find in his temple and worship a tolerably clear representation of the *ark*. Clavigero has put this under the

\* See the first chapter of Bochart's *Phaleg*, for a very learned discussion on Saturn and Noah. It is very probable that the history of two different persons is contained under the name of Quetzalcoatl ; but more of this in a future page.

head of amusements, and calls it the Mexican theatre. We shall, however, introduce it in this place.

There was in the area of the temple of this god, a small theatre, thirty feet square, curiously whitened, which was adorned with boughs, and fitted up with the greatest neatness, and surrounded with arches made of flowers or feathers, from which were suspended *many birds, rabbits, &c.* After dining, the whole people having assembled, certain persons appeared who exhibited burlesque characters, feigning themselves deaf, sick with colds, lame, blind, crippled, &c. addressing the idol for a return to health. These buffoons raised the laugh of the people, by relating their misfortunes, and ludicrous encounters with one another: others appeared under the names of different little animals; some were *disguised like beetles, toads, lizards, &c.* little boys also appeared in the *disguise of butterflies and birds.*

Similar arkite rites\* were common in many parts of the ancient world; none, however, have a more striking reference than this of the Mexicans.

The feast of Bacchus was an arkite rite, or institution; and was celebrated much in the same

\* Mr. Bryant, in the second volume of his works, treats on the arkite rites at length: a perusal of that part of his writings, will show the principle of the Mexican superstition.

manner as that of the Mexicans : for men and women, disguised like Silenus, Pan, the Satyrs, &c. acted various buffooneries before the people. From this feast of Bacchus, the Grecian drama arose ; and of course, the modern theatre.

But to return to Quetzalcoatl. His mysterious disappearance agrees very well with the account given by Berosus of Xisthurus, who also unaccountably disappeared. Xisthurus is so plainly the same as Noah, that no doubt can remain as to their identity. Mr. Maurice remarks, that this disappearance of Xisthurus, is not irreconcilable with the Mosaic history ; which relates nothing of Noah after the flood, further than mentioning the years of his life. Some learned men suppose, that he retired and separated from his posterity ; which may have thus given rise to the history of his having disappeared.

TLALOC OR TLALOCATEUOTLI, (*Master of Paradise,*)

Was the god of water. The Mexicans and others, called him, fertiliser of the earth, and protector of their temporal goods. They believed he resided upon the highest mountains, where the clouds are generally formed. His image was painted blue and green, to express the different colours observed in water ; and he held in his hand a rod of gold, of an undulated and pointed form, to denote lightning.

In the ancient Zodiac of Egypt, (*see Hist. Hind. vol. i.*) Typhon is represented with similar rods to those of Tlaloc, and which are plainly emblematical of lightning. Typhon was, as is well known, the deity of water, and a personification of the sea, deluge, &c.

XIUHTEUCTLI, (*Master of the Year and Grass,*)

Was among the nations of Anahuac, also the god of fire. To this deity they made an offering of the first morsel of their food, and the first draught of drink, by throwing them both into the fire.

This deity coincides with the Vesta of the Romans, who was goddess of the earth, or its productions, and also of fire. The difference of sex is of no weight against our observation; we are not to regard sex, in any comparison of ancient deities.†

CENTEOTL, (*Goddess of the Earth and Corn,*)

Was called also, Tonacajohua, (she that supports us.) Her temple was on a lofty mountain. At her

† "Nobody had examined the theology of the ancients more deeply than Porphyry; he was a determined pagan, and his evidence in this point, is unexceptionable; he acknowledged that Vesta, Rhea, Ceres, Themis, Priapus, Proserpine, Bacchus, Attis, Adonis, Silenus, and the Satyrs, were all one and the same." (*See Bryant's Analysis Ancient Mythol. i. 316.*)

- And Sir Wm. Jones,.... "We must not be surprised at finding, on a close examination, that the characters of all the pagan deities, male and female, melt into each other," &c. &c. &c. (*Sir William Jones's Works, iii. 385.*)

temple, among the Totonacas, was one of the most renowned oracles of the country.

We have nothing to say here, but that the most famous oracles among ancient nations were in caves, and were under the protection of the goddess of the earth.

Baron Humboldt, however, remarks, that Centeotl is the same with the beautiful Chri, or Lakshmi of the Hindoos; and whom the Mexicans, like the Arcadians, designated under the name of the great goddess, or primitive goddess.—(See *Humbolt's Researches*, i. 221.)

#### MICTLANTEUCTLI,

The god of hell, and his female companion, were much honoured by the Mexicans. These deities were supposed to dwell in a place of great darkness, in the bowels of the earth. Sacrifice and offerings were made to them in the night; and their chief priest was always dyed black, in order to perform the functions of his priesthood.

#### HUITZILIPOCTLI, OR MEXITLI,

Was the god of war, the deity most honoured by the Mexicans, and was considered their chief protector. His origin is thus described: There lived in Cotepec, a place near the ancient city of Tula, a woman called Coatlicue, who was extremely devoted to the service of the gods. One day, according to

her custom, as she was walking in the temple, she beheld, descending in the air, a ball made of various feathers. She seized it, and kept it in her bosom, intending afterwards to decorate the altar with the feathers; but on searching for them after her walk, they were not to be found, which very much surprised her; and her wonder was much increased when she perceived from that moment she was pregnant. Her pregnancy was discovered by her children; who, though they could not suspect their mother's virtue, yet fearing the disgrace she would suffer from the world, determined to put her to death. She was in very great affliction at the thoughts of dying by the hands of her own children; when she heard an unexpected voice issue from her womb, saying, "be not afraid, mother, I shall save you with the greatest honour to yourself and glory to me." Her hard-hearted sons, guided and encouraged by a sister, who had been most keenly bent upon the deed, were upon the point of executing their purpose, when Huitzilopoctli was born, with a shield in his left hand, a spear in his right, and a crest of green feathers on his head, the left leg adorned with feathers, and his face, arms, and thighs, streaked with blue lines. As soon as he came into the world, he displayed a twisted pine, and commanded one of his soldiers to kill his sister, as the one most guilty. (It does not appear how these soldiers were produced.) He himself attacked the others, with so much fury, that in spite of their efforts, arms, or intreaties, he killed them all, plundered their houses, and presented the spoils to his mother. Men

were so terrified that they called him Tetzahuitl, *terror*, and Tetzauhteotl, *terrible god*. This was the god who, becoming the protector of the Mexicans, conducted them through their pilgrimage, and at length settled them on the place where Mexico was afterwards built. His statue was of a gigantick size, in the posture of a man sitting on a bench, of a blue colour, from the corners of which issued four large snakes: his forehead was blue, and his face covered with a golden mask, as was also the back of his head by another: upon his head was placed a crest, shaped like the beak of a bird: around his neck a collar, consisting of ten figures of the human heart: in his right hand was a large blue twisted club; in his left a shield, on which five balls of feathers were arranged in the form of a cross; from the upper part of the shield rose a golden flag, with four arrows, which the Mexicans believed came from Heaven: his body was girt with a large golden snake, and adorned with many small figures of various animals, made of gold and precious stones; each of these figures, Clavigero says, had a particular meaning, which he does not relate. To this deity were sacrificed more human victims than to any other god.

There is not a small resemblance between Huitzilopoctli and some parts of the history of the Hindoo Creeshna. Those who may wish to read Creeshna's life at length, will find it in *Ancient Hist. Hind.* vol. ii. 327.

The accounts given by Clavigero of the remaining great gods, are too brief and insignificant to merit notice. Besides these, they also had 260 deities, to whom as many days were dedicated.

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The Mexicans also had their *Penates*, or household gods, which were called *Tepitoton*. Of these small images, the king and great lords had always six in their houses; the nobles had four; and the lower class of people two. These gods were to be seen every where in the streets.

The comparison which might be made here, must be obvious to every one acquainted with Roman mythology.

The most extraordinary idol of the Mexicans, was a representation of Huitzilopochtli, made by pasting certain seeds together with human blood.

This custom of making images of seeds, is not peculiar to the Mexicans; though it appears they were the only people who made their gods in this manner. The substance of the following extract is from Rollin's Ancient History :  
“ Empedocles, of Agrigentum, having conquered at some of the publick games, was obliged to feast the people with an ox ; but being a Pythagorean, he could not kill an animal ; he therefore had the image of an ox

made of a paste, composed of myrrh, incense, and the different varieties of spices ; which was broken up, and the pieces given to those present."

We must here introduce an observation on the Mexican gods, who were, for the most part, painted with red and blue streaks.

Mr. Maurice, in *Hist. Hind.* says, that blue vestments and decorations are usually met with on the statues of Hindoo and Egyptian deities. Thus, Narayen and Sani are of a blue colour ; and Isis wore a blue veil. Vermilion was also a common colour with the deities of these two nations.

Pliny says the Romans painted Jupiter's face red ; and Vulcan was sometimes represented with a blue hat.

## CHAPTER IX.

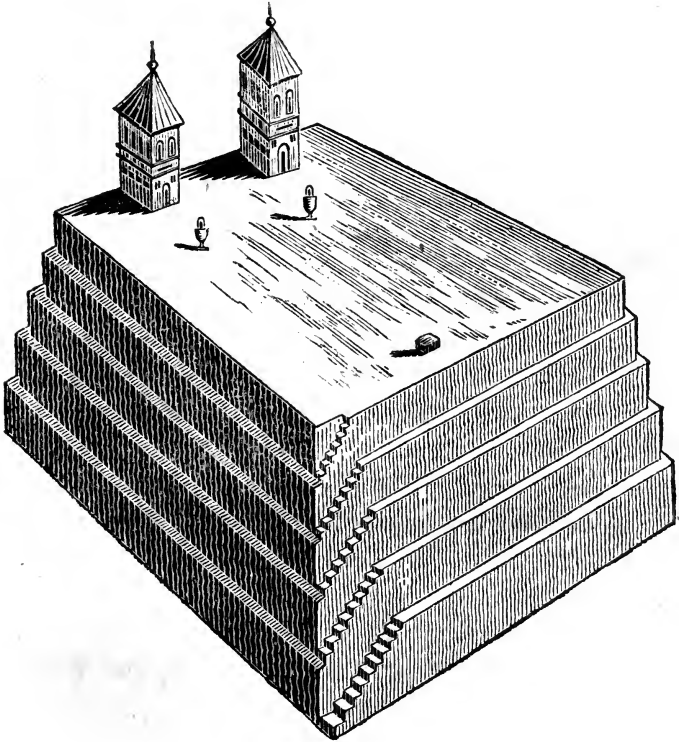
## ON THE MEXICAN TEMPLES.

As the Mexicans were extremely well priest-rid, they had an immense number of holy persons to support. We will not exhibit the ceremonies, vows, vigils, or fasts of this body—nor will we expose the impostures and cruelties of the profession, the miseries a nation endure when under the dominion of priest-craft, are so well known, that our readers might consider it an impertinent digression, were we to attempt illustrating this fact by accounts of the Mexican hierarchy.

The antiquarian will find some interesting facts arising from the consideration of the Mexican Temples; the erection of which buildings cost this American people great and laborious exertions.

The principal temple of Mexico, and which was dignified with the appellation of the GREAT TEMPLE, was dedicated to Huitzilopochtli. This building seemed as if composed of five pieces, or bodies, one above another, the largest below, and gradually diminishing in each successive piece to the top; the steps were

peculiarly constructed, which can be better understood by means of the following figure, than by any language of description.



The upper body or story was paved with smooth flat stones ; and at the eastern extremity of this surface, stood two towers, of the height of fifty-six feet : each of these towers was divided into three bodies ; the lowest of which was of stone and lime, the two

upper ones were of wood well wrought and painted. The stone part of each of these towers was properly the sanctuaries. One of these sanctuaries was dedicated to the gods of war, and the other to Tezcatlipoca: before each of them was a stone stove, in the shape of the pyx used by the Roman Catholick church, in which was kept a constant fire. A convex stone was at the west end of the surface, upon which human sacrifices were made. This great temple, with forty chapels, colleges, fountains, gardens, &c. was enclosed by a stone wall, very thick, and eight feet high; which was ornamented with many stone figures of serpents, whence its name, *Wall of Serpents*.\*

The principle, strikingly evident in the plan of this Mexican temple, is the same with that of the oldest building recorded in history; and is a remarkable proof of the great antiquity of the American nations. The extract we shall here give, is so pointed as a parallel with the Mexican temple, that it would be needless to urge the fact.

“Bochart says, the tower of Babel was, at its base, a square of a furlong, or half a mile, in circumference; and consisted of eight towers, as they appeared to be, built one above the other. The ascent to its top was by

\* The Mexicans had also another form of temples, resembling a truncated pyramid, and the ascent to the top by means of steps raised on one side only. Mr. Maurice has noticed the analogy between these temples, and those of Hindostan, in a comparative plate, in his Indian antiquities.

stairs on the outside ; formed by a sloping line, from the bottom to the top, eight times round it, so as to exhibit the appearance of eight towers ; the uppermost of which was the most sacred, and most appropriate to the uses of devotion. In this temple of Belus there seemed to be two distinct deities worshipped : one was the supreme God of heaven, while Belus was at least the delegated god on earth." (*See Rees's New Cyclopædia.*)

The similarity between the Mexican and Babylonish temples, with respect to the worship of two divinities, is also striking :—for the two towers that stood on the Mexican temple, were each dedicated to a different deity—one to Tezcatlipoca, their supreme (but visible) god ;—and the other to Huitzilopochtli, god of war, and chief protector of Mexico. (*See Clavigero's Hist. Mexico.*)

Baron Humboldt has made a similar application to the Mexican temples ;—he thus expresses himself.

" It is impossible to read the descriptions which Herodotus and Diodorus Siculus have left us of the temple of Jupiter Belus, without being struck with the resemblance of that Babylonian monument, to the teocalli's (temples) of the Mexicans." (*Humboldt's Research. ii. 82, octavo.*)

To illustrate further the great analogies existing between the Mexican edifices, and buildings made

for similar purposes in the old continent,—we will here add several observations from the writings of this learned traveller.

“It is also remarkable, (especially if we call to mind the assertions of Pococke, as to the symmetrical position of the lesser pyramids of Egypt,) that around the temples of the sun and moon at Teotihuacan, we find a group, I may say a system of pyramids of scarcely nine or ten metres. (29 or 32 feet.) These monuments, of which there are several hundred, are disposed in very large streets, which follow exactly the direction of the parallels, and of the meridians, and which terminate in the four faces of the two great pyramids : according to tradition they were dedicated to the stars ;—it appears certain, however, that they served as burying places for the chiefs of tribes :—all the plain bore formerly the name of *Micaotl*, or road of the dead,—What analogies with the monuments of the old continent !—and this people who, on arriving in the seventh century on the Mexican soil, constructed on an uniform plan, several of those colossal monuments, and truncated pyramids divided by layers like the temple of Belus at Babylon :—Whence did they take the model of these edifices ? Were they of the Mongol race !!! Did they descend from a common stock with the Chinese, the Hiong-nu, and the Japanese !!! (Credat *Judæus* appella.) (*See Humboldt's Polit. Essay, ii. 44.*)

Again,

“In the great pyramid of Cholula, formed of alter-

nate strata of brick and clay, we recognise the same model observed in the form of the pyramids of Teotihuacan.—This monument suffices also to prove, the great analogy between these brick monuments, erected by the most ancient inhabitants of Anahuac, and the temple of Belus at Babylon, and the pyramids of Menschich-Dashour, near Sakara in Egypt.” (*Ibid*, ii. 120.)

From the preceding observations we learn the remarkable fact, that the Mexican temples are built upon the very same model as the famous tower of Babel.—Why this was done may be easily explained by the opinion given in VII. chap. of this Essay.

The Mexicans being *immediately* dispersed from Babel, as well as other original nations, would naturally, when established in another country, act upon the principles and knowledge in which they had been educated, and would do those things which they had been accustomed to. Hence, if mankind, prior to the dispersion, had been accustomed to no other form of temple, than that style in which the temple or tower of Babel was built, (and which, it is very probable, was only a grand cathedral, on the common plan,)—we must then expect to find mankind, after the dispersion, building their temples upon the identical plan or model, of those that they had been accustomed to.

As an illustration :—The Roman Catholicks almost universally build their churches in the form of a cross. This is their plan and model ;—and though St. Peter’s at Rome, is very far superiour to a parish

church, still both of them have the same form and design of building; and this is done in whatever part of the world that a Catholick erects a church.

And thus we observe, that the religious edifices of Babylon, Egypt, Hindostan, and Mexico, have such analogies to each other, as must convince any one, they are all derived from one and the same model; *which model* appears to be the same as that by which the tower of Babel was built.

It will be useful to pursue the subject of this chapter further, as in it are involved many considerations that must be interesting to the philosopher and antiquarian.—From the arguments which we have just urged, it must appear that the Mexicans and other ancient nations, would inevitably follow that style of temple building which we may, for distinction sake, call the Babylonian.—Now, in perfect accordance to this, and other opinions of our essay, it can be shewn, that the morais, or temples of the Islanders of the Pacific ocean, are of the same principle, and same original model, with those of Babylon, Egypt, or Mexico. To exhibit this more plainly, see the following extracts from Capt. Cook's voyages.

“The morai of Oberea is a prodigious pile of stone, two hundred and sixty-seven feet long, and eighty-seven wide at the base. It is raised by flights of steps to the height of forty-four feet, these steps are each four feet high, narrowing gradually till they end in a small entablature, on which near the middle stands the figure of a bird carved in wood, and at some distance the broken fragments of a fish cut in

stone. This pile makes a considerable part of one side of a square court, whose area is three hundred and sixty feet, by three hundred and fifty-four, enclosed with a stone wall, and paved with the same materials through its whole extent; at what time it was erected, could not be learned. Captain Cook remarks, that this work being solid and without a cavity, will last as long as the island itself, and that no time that will not equally effect the island can destroy it." (*See Cook's Second Voyage, ii. 567.*)

Again,

"In the Isle of Owyhee, was a morai forty yards in length, twenty broad, and fourteen feet in height; the top is flat, and it is surrounded with a wooden railing; a ruinous wooden building is situated in the centre of the area, connected with the railing by a stone wall, dividing the whole space into two parts." (*See Cook's Voyages, v. 1933.*)

To the same intention with these morais, teocallis, or temples, we might ascribe many of those rude monuments that occur in many parts of the United States, and are known by the name of mounds. We will hereafter shew that they are found in every quarter of the globe; among the Caffres of Africa, as well as on the plain of Troy. Bryant, says, (*see Taph. in Analysis Anc. Mythol.*) that altars were anciently built on mounds.\*

\* "Attila erected an altar or pile of faggots three hundred feet square to the sword of Mars, which was placed erect on the summit, and was annually consecrated by sacrifices." (*Gibbon's Decline & Fall, vi. 44. Lond. Edition.*)

When the Spaniards arrived in South America, they found stones cut into the figure of the *cross*; which were much revered by the Mexicans.\* This has long seemed inexplicable: for it induced a belief, that some Christian people had visited these shores, previous to the discovery by the Spaniards. Later research has however elucidated the difficulty: for

The *cross* is a symbol of MATTER; and was venerated among the Egyptians from the *greatest antiquity*; and in Hindostan, where the singular fact occurs, of building temples sometimes in that form, as for instance, those ancient ones of Benarès and Mattra. (*See Anc. Hist. Hind. vol. i. 249.*)

General Valancey says, the symbol of knowledge among the ancient Irish, was the *cross*.

The sacrifices of the Mexicans were extremely cruel and bloody; so much so, that Clavigero, in enumerating their festivals, remarks, that one of their most extraordinary festivals was the one in which not a single human victim was required. These horrid sacrifices have many parallels in ancient history,

\* Garcilazo De la Vega, informs us, that the ancient Peruvians had a cross of white marble in the royal palace of Cozco, which they did not adore; but held it in great veneration; for which they could assign no reason. (*See Ricaut's Translation of Garcilazo, folio, 30.*)

espécially among the Carthagenians, Gauls and Hindoos.\*

They also sacrificed to the sun, much in the same manner as the old Persians did. This subject, however, is not worth our particular investigation.

\* The sacrificing of men has been more or less common with all ancient nations; for a particular detail—(See *Eusebius Præp. Evang. Lib. iv. cap. xvi.*)

## CHAPTER X.

ON THE MEXICAN DIVISION OF TIME, ASTRONOMY, &amp;c. &amp;c.

**T**HE very considerable degree of astronomick knowledge possessed by the Chaldeans, Hindoos, &c. has for a long time excited the wonder of the literary world. How these nations, without the aid of glasses, could know and so accurately describe the heavenly bodies, and make the calculations necessary for predicting conjunctions of the planets, eclipses, &c. is very astonishing. To explain the origin of this knowledge, astronomers have been obliged to consider it of antediluvian existence. And if we can prove the separation of the inhabitants of America from those of the old world, at the early period we have fixed on, this knowledge must certainly be derived from antediluvian observation and experience: for there is a striking similarity between the astronomy of the Mexicans and other people of South America, and that of Hindostan, Chaldea, &c.

## AGES OF THE WORLD.

The Mexicans, and other nations of Anahuac, distinguished four ages of time, by as many *suns*. The

first was Atonatiuh, the sun, or age of water ; which commenced with the creation of the world, and continued until that time when all mankind perished with the sun, by a general inundation.

The second, Tlatonatiuh, age of the earth, lasted from the time of the inundation, until the ruin of the giants, and *the great earthquakes* ; which concluded the second sun. The third, Eatonatiuh, age of air, lasted from the destruction of the giants, until the great whirlwinds, in which all mankind perished along with the third sun. The fourth age, Tletonatiuh, age of fire, began with the last restoration of the human race, and was to continue until the fourth sun and the earth are destroyed by fire.

Several ancient nations of the old continent have similar divisions of the age of the world ; none are of greater antiquity than that of the Hindoos, whose divisions we shall use as a parallel.

Their first yug or age was finished by a mighty flood ; the second, by means of a great whirlwind and tempest ; the third, by a great earthquake, and the fourth is to be terminated by a general conflagration.

It is probable, that the Hindoo arrangement of these divisions is the proper order they should stand. Individually considered, they are precisely the same as the Mexican, and only differing in arrangement. The second sun or age of the Mexicans, we think

should be their third; and the third sun will then be in place of the second. The original order of the Mexican ages may have been deranged by time, accidents, or mistakes of the Spanish writers.

It cannot be supposed, that these divisions of the age of the world were made previous to the dispersion from Babel; but they were most probably formed by several great events, happening at different periods of time, and which were important in their influence or effect upon man.

According to the Hindoos and Mexicans, the first age was terminated by a great inundation, assuredly the same as the deluge.

The second period was terminated by whirlwinds, which we know not how to affix, unless with Mr. Bryant we believe, that the miracle of the confusion was also attended with violent tempests, whirlwinds, &c. Such an event as the dispersion, might very justly be denominated the end of an age; a period which lasted from the deluge, when all mankind were living together as one people, to that time, when they were scattered over the globe.

The third age, which was finished by *earthquakes*, was the time from the confusion of language to the great division of the earth, which we have previously treated of; and if admitted to the extent we have laid down, there is no difficulty in believing that nations widely separated would place it as a grand epoch in their divisions of time.

The termination of this present or fourth age by fire, is an universal belief, as well among Christians

as Pagans. This last termination of the world, the Jews say, was prophesied before the flood, if we mistake not ; but, at any rate, by Noah. We can therefore account, in this manner, for the universal belief of the ending of the world by fire.

#### OF THE MEXICAN YEAR, &c.

The Mexican year was measured by two different calendars, which were designated by the names of CIVIL, and RELIGIOUS.\*

The civil year was solar, and consisted of three hundred and sixty days, which were formed into *eighteen periods or months, of twenty days*. To give the correct length to the year, they added at the close of the last month, five days ; which were called *nemontemi*, void or useless days, as not being attached to any month, nor included in any calculation. From the end of these five days they commenced a new year. But as the true length of the year exceeds three hundred and sixty-five days, by six hours and upwards ; the Mexicans lost a day every four years ; this defalcation, however, was allowed to accumulate until it amounted to *thirteen days*, which would take place during the lapse of fifty two years, (of 365 days;) *these thirteen days were then added to the fifty-two years* ; and from their end, a new period began, which brought the commencement of the year back to its true place.

\* The Jews resembled the Mexicans in this particular, for they began the year for civil purposes in the month Tizri, which answers to our September ; but for ecclesiastical purposes with Nisan, which answers to our April. (See *Priestly's Lectures on History. Sect. xiv. 198.*

The correct Mexican year began on the time answering to our 9th of January; but as they did not intercalate the six hours, minutes, &c. of excess, until they amounted to *thirteen days*: the commencement of their years varied accordingly, in proportion to the time elapsed from the commencement of the period of 52 years.

Thirteen years formed a period or cycle, called a TLALPILLI,—four tlalpilli made the period of fifty-two years, known by the name of XIUHMOLPILLI\*, and two of these last periods formed, what they called, *an old age*, or CEHUEHUETILIZTLI.

The year was divided into eighteen equal MONTHS, and each month was divided into four periods of five days.†

The beginning of the Mexican day, according to Baron Humboldt, was reckoned from sun rising, like the Persians, Egyptians, Babylonians, and the greater part of the nations of Asia, except the Chinese; and it was divided into eight intervals, a division found among the Hindoos and Romans.

\* Xiuhmolpilli, signifies *ligature of our years*, and was hieroglyphically expressed by a bundle of rushes tied in the middle, something like a sheaf of wheat;—an apparent analogy to this hieroglyphick, may be seen engraved on the seat of the statue of Menemon, where two figures are tying a bundle of flags, or rushes, with a rope or cord. (*See plate cxi. to Norden's Travels.*)

Baron Humboldt observes, that the year was known among the Peruvians, by the name of *huata*, a word derived from *huatani*, to tie, or *huatanan*, a rope of rushes. (*Humboldt's Researches*, i. 287.)

† The people of Benin, in Africa, have small periods of five days—every fifth day is celebrated as a festival, with sacrifices, offerings, and entertainments. (*See Payne's Geog.* ii. 190.)

## ON THE MONTH.

I think it may be proved, says Baron Humboldt, that a great part of the names, by which the Mexicans denoted the twenty days of their months, are those of the signs of a zodiack, in use from the remotest antiquity among the nations of eastern Asia ; and in order to demonstrate that this assertion is less unfounded than it appears at first sight, I shall unite in the same table ;—1st. The names of the Mexican hieroglyphicks—such as they have been transmitted to us by every writer of the sixteenth century. 2dly, The Tartarian, Japanese, and Thibetan names of the twelve signs of the Zodiack :—and 3dly, The names of the Nacshatras, or lunar houses, of the calendar of the Hindoos.—(*See the annexed table.*)

TABLE—(*From Humboldt.*)

SIGNS OF THE ZODIACK.					
<i>Hindoes, Greeks, and Western Nations.</i>	<i>Manichou Tartars.</i>	JAPANESE.	THIBETAN.	<i>Hieroglyphicks of the DAYS of the Mexican Calendar.</i>	<i>Nachsharras, or Lunar Houses of the Hindoes.</i>
Aquarius, Capricorn, Sagittary, Scorpion, Balance, Virgin, Lion, Crab, Twins, Bull, Ram, Fishes,	Singueri, rat, Ouker, ox, Pars, tiger, Taoulai, hare, Lon, goat, Mogai, serpent, Morin, horse, Koin, sheep, Petchi, ape, Tukia, bird, hen, Nokia, dog, Gacai, hog,	Ne, rat, Ous, ox, Torra, tiger, Ov, hare, Tats, crocodile or dragon, Mi, serpent, Ouma, horse, Tsitousse, sheep, Sar, ape, Torri, hen, In, dog, Y, hog,	Schip, rat, water, Lang, ox, Tah, tiger, Io, hare, Brou, dragon, Proul, serpent, Tha, horse, Lon, goat, Prehou, ape, Tcha, bird, Ky, dog, Pah, hog,	Atl, water, Cipactli, sea monster, Ocelotl, tiger, Tochtli, hare, Cohuatl, serpent, Acatl, cane, Tecepatl, silver knife, Ollin, path of the sun, Ozomatli, ape, Quauctli, bird, Itzcuintli, dog, Calli, house,	<i>The Mahara is a sea monster.</i> <i>Serpent.</i> <i>Cane.</i> <i>Razor.</i> <i>Traces of the feet of Vishnu.</i> <i>Ape.</i> <i>Dog's-tail.</i> <i>House.</i>

NOTE. B. H. has not given the translation of the Tartar or Japanese signs in his table;—I have, however, inserted their signification, procured from several different discussions of his Researches.

The striking analogies exhibited in this table, certainly justify Baron Humboldt's belief, that these different astrological signs have had a common origin ; and he shews in his discourse upon this table, great reason for believing, that the twelve signs of the zodiack, have been selected from a lunar zodiack of 27 or 28 signs. And he observes, we may yet find in some country celebrated for its ancient civilization, a lunar zodiac in which the composition and arrangement of the signs, may be the same with those of the Mexicans.

The Baron further observes, that the apes and tigers, which we find in the zodiacks of the Tartars and Mexicans, are not found either in the central and elevated plains of Eastern Asia, or in the northern parts of New Spain, or North West Coasts of America, whence the Mexicans emigrated, about 400 years prior to the discovery by Columbus.

Baron Humboldt mentions a series of signs known among the Mexicans, by the names of *Lords of the Night* ; we might be tempted to look for some analogy between these nine lords of the night, and the nine astrological signs of several nations of Asia ; but he observes, that this number is chosen merely on account of the facility, with which they divide the 360 days into 40 times. I do not think this is a correct explanation of this fact, for why should the Mexicans choose numbers that they made no use of, and especially, numbers that were not favourites.

We will now leave the CIVIL, and speak of the SACRED or RELIGIOUS calendar, which in fact was the one in common ; we might say, universal use.

This calendar presents an uniform series of small periods of *thirteen days*, progressing until they amounted to 260 days, which formed the religious year.

The religious century consisted of *seventy-three* religious years, amounting to 18980 days; which coincides exactly with the duration of that period, which we have already spoken of under the name of Tlalpalli;—in this manner the civil and religious computations were reconciled to each other.

We will not go into the explanation of the complex method by which the Mexicans kept their chronological history;—though considerable analogies might be shewn to exist between the method of the Mexicans and Japanese, Thibetans, Hindoos, and Egyptians. (*See Humbolt's Researches, explanation of plate xxxvi.*)

The Mexicans had a very great esteem for the number thirteen; their century was divided into four periods of thirteen years; and while thirteen months formed their cycle of 260 days—thirteen days made their smaller periods.

The number four, was esteemed no less; as they reckoned four periods of thirteen years to their century: they also had thirteen periods of four years; at the expiration of each period of four years, they made extraordinary festivals.

The number thirteen, as it respects the small periods, appears to be nothing else than a rude division of the moon's revolution into halves.

The first astronomers of the Mexicans had divided the revolution of the moon into two periods : namely, that of the *watching* and *sleeping* of the moon. These two divisions of the month, are undoubtedly of the highest antiquity ; for thus the ancient Hindoos divided their month into two periods, called the *light* and *dark* sides of the moon, and were then called a day and night of the gods ; the bright side for their laborious exertions, and the dark one for their sleep. (*See Asiat. Res. vol. ii. and Hist. Hind. vol. i. p. 138.*)

A circumstance that further confirms the opinion, that the Mexican periods of thirteen days are rude attempts to halving the months, is an account of the Hindoo year, given by sir William Jones, in Asiatic Researches, v. ii. where the reckonings are kept by periods of *fifteen days*, halves of their months, which consist of thirty days.

Why the number four was esteemed, we cannot learn ; but a veneration for that number has existed in many parts of the world, from the greatest antiquity. The Greeks and Romans had an high estimation for it. The chronology of Greece was kept by Olympiads, periods of four years, so called from the Olympic games being celebrated every four years. The origin of these games was so remote, that the Greek historians could not date the

time of their first institution. The Isthmian and Panathenian games were also celebrated every four years, the mysteries of Elusis, &c.

The Romans had a period of five, or, as Ovid and some others say, four years, called the Lustrum; at the end of which, the whole Roman people were purified. Clavigero says, the Mexicans, at the end of each period of four years, made extraordinary festivals; but does not mention particularities of them. In this case, their conformity to the Lustrum is striking.

The old Irish, according to general Valancey, had a period of *five years*, called Lusca; and so also had the Egyptians, or a cycle of 1825 days. (*See Ouseley's Orient. Col. vol. ii. p. 332.*)

The division of the month, among the Romans, it is very probable, was of the same invention as the Mexican periods of five and thirteen days. The Roman, or more properly, the Etruscan month, was divided into Calends, Nones, and Ides. The Calends were merely the first days of every month. But it is a little surprising to find, that in eight months of the twelve, the Nones were on the *fifth* days, and the Ides on the *thirteenth* days: in the remaining four months, the Nones fell on the seventh, and the Ides on the fifteenth days.

The Nones were so called, because they were nine days from the Ides, counting backwards. At least, that is the explanation given; which is the most extraordinary calculation we know of; and is certainly too complex and unnatural to have been the original method. It most probably had a similar origin with the Mexican periods of five days to their months, &c. which we formerly mentioned.

As to the derivation and meaning of the word Ides, authors differ materially. It may be of use to give their different opinions, which we have extracted from Rees's Cyclopædia. "Some derive this word from the Greek *idein*, to see; because the full moon was commonly seen on the day of the Ides. Others from *eidos*, species, figure; on account of the image of the full moon then visible. Others from *Idulium*, or *Ovis Idulis*, a name given by the Etrurians to a victim offered on that day to Jupiter; or from the Etrurian word *iduo*, to divide."

Either of the two first derivations will answer well enough, towards proving the Ides to have been much of a similar institution as the Hindoo and Mexican division of the month into two parts, or the bright and dark sides of the moon: thus, from the Calends to the Ides was the dark side of the month;

but on the Ides, the moon was full, and continued so to the ending of the month, which would answer to the bright side.

This Mexican division of the month, may very probably be considered as one of the very first attempts towards forming fixed periods for the computation of time.

Clavigero remarks, that the Mexican year consisted of *seventy-three* periods of five days—and the religious century of *seventy-three* periods of thirteen months.

This number *seventy-three*, is of a very ancient and mysterious use ; and may have anciently had a similar origin with the Hindoo period *seventy-one* or *two* : which, according to the Asiatic Society, refers to the precession of the Equinoxes, or apparent motion of the fixed stars, which is about one degree in *seventy-two* years.

The Hindoos have made great use of this number ; and on the multiplication of it by other astronomick periods, is founded the enormous age of Hindoo history and chronology. The long time the Mexicans have been separated from the Hindoos, and other people of the old world, may sufficiently account for the different use they made of it.

At the end of the seventy-three periods of thirteen months, which make fifty-two years, the Mexicans broke all their furniture, utensils, &c. fearing the appointed time was come for the ending of the world, which, according to their belief would happen at the end of some of their periods of fifty-two years. As soon as assured that such a calamity would not take place, they appropriated the ensuing thirteen days to make new furniture. On this occasion great entertainments were given, publick games and dances were exhibited, with illuminations, and great demonstrations of joy.

This superstition of the Mexicans appears analogous to the belief of the Burmas—who expected that all mankind would be destroyed at the end of one of their periods of sixty-four years. (*See Asiatic Researches, viii.*)

These thirteen days were not attached to any period of time, but were intercalated for the purpose of arranging the seasons, in their proper places; for though the Mexicans knew the correct year was six hours, more than three hundred and sixty-five days, yet they took no notice of it until fifty-two years had elapsed; by which time the continual excess of six hours each year, amounted to thirteen days, which were then intercalated, and on their ending, a new century, year, &c. commenced.

The figure, and manner of keeping an account of

their century, is very curious; but as it can be of little use in this undertaking, I forbear to describe it.

Round the circle containing the figure of the century, was a serpent twisted into four knots, which pointed out the commencement of each period of thirteen years.

The serpent is well known to be emblematical of the Deity, the sun, &c. generally over the world, and maintains a conspicuous station in the astronomick figures of most nations. In the Mexican figure given by Clavigero, this snake has a hairy head, and a mouth like the beak of a bird. This would be scarce worth mentioning, but for the circumstance that antiquarians have referred all serpents thus figured to Egyptian invention; but from the Mexicans using the same device, it is probably as ancient as any other symbol in the world.

To represent the year, they describe a circle in which eighteen figures were drawn. I must here remark that the circle is divided into six equal parts, as if into seasons, though Clavigero does not notice the circumstance, the figure will very well bear a similar explanation, with the six seasons of the Hindoos.

The Chilian year consisted of 12 months or moons, each consisting of 30 days,—they also intercallated

five days, though it is not known at what time of the year this was done.—The year commenced on the 22d of December.—This year was divided into four seasons, answering exactly to our method,—the day was divided into twelve equal parts, and commenced from midnight. (*Abbe Molina's History of Chili*, ii. 84; &c.)

## CHAPTER XI.

## CLASSIFICATION OF THE MEXICAN PEOPLE.

**T**HE population of the Mexican empire was divided into four classes, which, if not originally instituted by legal authority, were allowed by universal consent and custom. These four classes were, the nobles, priests, soldiers, and common people; and like the old Egyptians, every father instructed his son in the profession or art he himself had followed.

Diod. Sicul. says, the Egyptians were from the earliest times divided into *five* classes; the fifth class, however, is more an order or division of the fourth than a distinct class, for it is made by separating the mechanicks from the husbandmen.

It is also well known that the Hindoos, from the greatest antiquity, divided their people into four casts or classes, and which are the same as the Mexican.

We will not give any other views of the policy, or principles of government, among the Mexicans; as such an investigation alone, would require a greater bulk than our whole volume;—the curious reader will be gratified by the Abbe Clavigero.—(*See the second volume of Hist. of Mexico.*)

## CHAPTER XII.

## MANNER OF WRITING, &amp;c.

**T**HE Peruvians kept their records, history, &c. by means of knotted cords called quipos.

This method of preserving the remembrance of past events is of very ancient use, for Du Halde says, in his History of China, that “Fo-hi, first emperor of China, finding the knotted cords used by the Chinese were unfit to publish his laws, therefore invented characters, &c.

Mr. Marsden observes, that the Sumatrans have a similar invention with the Peruvian quipos; he even supposes the one an improvement on the other.—(*See History of Sumatra*, 154.)

The Wampum belts of the Northern Indians are also of a similar device.

The Muysca Indians had cyphers to express numbers.—(*See an interesting account of this people in Humboldt's Researches*, ii. 119, *et sequitur.*)

The Mexicans not only represented the simple images of objects, but they also had some characters answering like the signs of algebraists for things devoid of figure or of difficult representation.

The cloth on which they painted was made of the thready part of the aloe or palm. They also used dressed skins and paper. In general their paper was made in very long pieces, which they rolled up like the ancient parchments of Europe, or folded up like skreens.

The Siamese manuscripts preserved in the public Library of Paris, are folded in zigzag.  
(See *Humboldt's Researches*, i. 163.)

## CHAPTER XIII.

## MILITARY WEAPONS, &amp;c:

**T**HE Mexicans used armour made of quilted cotton, plates of gold, copper, &c. ; they also wore helmets cut into figures of the heads of wild beasts, serpents, &c. precisely similar to those used in the early ages among the Greeks. (*See Potter's Antiquities.*)

In place of a sword, they used a large square stick, on two sides of which sharp pointed flints were set like the teeth of a large saw.

Captain Cook, in one of his voyages to the Pacific ocean, mentions some of the islanders using an instrument in battle similar to this, with the trifling difference of their using sharks' teeth, instead of flints.

The Mexicans also used pikes pointed with flints, or with copper hardened like those weapons of copper used by the ancient nations of the old world. Their darts were fastened to leathern thongs, and used like the old Roman spear.

Their stone hatchets, we have the authority of the

Archæologia, vol. IX. 97, to assert, are similar to those frequently found in Great Britain, and which are known by the name of Celts.

Baron Humboldt observes, that hatchets of jade, covered with Azteck hieroglyphicks, have been brought from Mexico, resembling in their form and nature those made use of by the Gauls, and those we find among the Islanders of the Pacific ocean.—(*Humboldt's Pers. Nar. i. 217.*)

The copper with which the Mexican pikes were pointed, appears to have been hardened by an amalgam of tin. Baron Humboldt carried to Europe a Peruvian chisel, found near a silver mine, worked in the time of the Incas; the metal of which it was composed having been analysed, was found to contain 0.94 of copper, and 0.6 of tin;—this copper is almost identical with that used in the ancient Gallic axes, which cut wood as if they had been made of steel.—(*See Humboldt's Researches, i. 260.*)

## CHAPTER XIV.

## CEREMONIES USED AT BIRTH, MARRIAGE, AND BURIAL.

**T**HE Mexicans used a variety of ceremonies on the birth of a child, and there is no slight resemblance between them and some nations in the old world on similar occasions; but as there are circumstances of greater importance to relate, we forbear to enumerate them.

The rites and ceremonies of marriage and burial, are too remarkable to be passed over in a cursory manner, we shall therefore relate them at length.

As to their marriages, when a young man arrived at a suitable age, a wife was looked out for him, and diviners consulted on the subject. If they augured ill, the match was given over entirely; but if the omens were interpreted favourably, the oldest and most respectable of the man's female relations went at midnight to the girl's parents with a present, and demanded her; which demand was infallibly refused. After a few days, these women went again and used every mean and entreaty to obtain the girl: the parents then asked time to consider on it, to consult their daughter's inclinations and the wishes of friends.

The man's relations after this went no more, and the girl's parents returned an answer by elderly women chosen from among their own kindred ; and if favourable, a day was appointed for the nuptials ; on which day she was conducted to her father-in-law's house, with numerous company and musick : if she was noble they carried her in a litter. The bridegroom and his friends, received her at the gate of the house ; he then takes her by the hand and leads her into the chamber prepared for the nuptials ; they were sat down upon a new and curiously wrought mat, spread in the middle of the chamber, and near a fire. The priest then *tied the mantle of the bridegroom to the gown of the bride* ; and in this ceremony, the matrimonial contract chiefly consisted. The wife now made several turns about the fire, and then returning to the mat, she along with her husband offered copal to their gods, and exchanged presents to one another, repast followed next ; the married couple eat upon the mat, giving mouthfuls to one another, and to the guests : after the feast, and when the guests had become exhilarated with wine, they went out into the yard to dance, but the new married pair never stirred from the chamber for four days ! They passed these four days in prayers, and fasting, dressed in new habits, and adorned with the ensigns of the gods of their devotions, and drawing blood from different parts of their bodies. These austerities were observed with the greatest exactness, for they feared the heaviest punishments of their gods, if the marriage was *consummated before the end of these four days*.

The first part of the Mexican marriage ceremony, coincides very much with that of the Ceylonese; see *Asiatic Researches*, vol. vii. 427.

The family of the man sends a friend to those of the woman, to sound their inclinations, &c. and generally the girl's family receive notice of it, and accordingly give a feast to their guest: a few days afterwards, the nearest and most aged relation of the man, pays a visit to the girl's family, and informs himself of her fortune and circumstances; and if they are satisfactory, he proposes an alliance. To this he receives no answer, but they treat him with a much greater feast than before, and which is usually a sign of consent. The next day a relation of the girl visits the family of the young man, and receives a considerable entertainment in his turn; he makes the necessary inquiries, and then says, if the young couple are satisfied, it would be well to marry them. A magician is then consulted as to the most lucky day, hour, &c.

The marriages of the Hindoos are remarkably similar to the Mexicans. See Mr. Colbrook's account in the *Asiat. Research.* vol. vii. 309. The ceremonies are thus recapitulated.

The bridegroom goes in procession to the house of the bride's father, and is there welcomed as a guest; the bride is then given in the

usual form of any solemn donation, and their hands bound together with grass; the bridegroom then clothes the bride with an upper and lower garment; *then the skirts of their mantles are tied together!* the bridegroom makes oblations to the fire, and the bride drops rice upon it, and after several inconsiderable ceremonies, the company is dismissed, the marriage being now complete, and irrevocable. In the evening of the same day the bridegroom points out to her the pole star, as an emblem or figure of constancy; *during the three subsequent days, the married couple must live chastely and austere;* and after these three days, which is *the fourth from the celebration of the marriage ceremony*, the bridegroom conducts the bride to his own house.\*

#### BURIAL.

At the burial of common persons, the Mexicans employed elderly persons to officiate as mourners. The body was dressed in the habit of the god, who was patron to the occupation the deceased had followed, and a number of pieces of paper were placed by him as passports through a variety of dangers to which they believed the soul was exposed. If he had died by dropsy, or had been drowned, they buried the

\*The marriages of the people of Thibet, are celebrated by *three days* of festivity; at the end of which time, the nuptials are completed. *Pink. Geog. ii. 109.*

body entire, with provision and water for his long journey, and tied a string round the neck of a little animal resembling a dog, which had been killed for the purpose of accompanying and guiding the departed soul; this animal was burned or buried, according to the particular funeral rites of his deceased master.

If they burned the corpse, the ashes were collected in an earthen pot, and along with them they put a gem, which was to serve as a heart in the next world. This urn, was buried in a deep ditch; and eighty days afterwards, they made oblations of bread and wine over it.

Those who were buried entire, were placed in a sitting position, with arms, or the instruments of the trade they had followed when alive.

On the death of the king, or of a great lord or chief, some other forms were used. When the king fell sick, they put a mask on the idol Huitzilipochtli, and one also on the image of Tezcætlipoca, which they never removed until the king either died, or recovered. If he died, notice was given of it in great form, that those residing at a distance might be present at the funeral. The corpse was laid on rich mats, and watched until the fourth or fifth day, when the lords arrived, bringing with them rich dresses, ornamental feathers, slaves, &c. They then dressed the corpse with fifteen or more fine cotton habits, dyed with various colours, and ornamented with gold, gems, &c. An emerald was hung at the upper lip, to *serve as a heart* in the future world. The face was covered with a mask, and over the dresses they

placed the ensign of the god, in whose temple he was to be interred. Some of his hair was then cut off, and put in a little box along with a portion that had been taken off in his infancy ; upon this box was laid an image of the deceased king, made of wood or stone. They killed his private priest or chaplain, and some slaves, as well as the little dog : the corpse, &c. was then laid on the fire and burned. The day following, the ashes were gathered, and the gem was particularly looked for. These remains were then inclosed in the box along with the hair, and deposited in the place destined for his sepulchre ; oblations and sacrifices were made at different stated periods, over the grave, until eighty days had elapsed.

There was no fixed place for interring the dead. Many ordered their bodies to be buried near some temple or altar ; some again wished to be interred in the fields, mountains, &c.

Some ceremonies used at the Mexican burials, have been very general over the world ; particularly in that superstition, where a gem or stone is placed along with the remains of the dead, to answer the purpose of a heart in a future world. The Hindoos to this day, (see *Asiat. Research.*) enclose a stone with the ashes of the dead, apparently with this same intention.

Mr. Pegge, in his observations on the Staunton Moor Urns, see *Archæologia*, vol. viii. 58, says that in these druidical monuments which

all contain burned human bones, is found a substance which is supposed to be mountain pitch, and which is cut into the shape of a *heart*! clearly an identical practice with the Mexican superstition.

It is very remarkable, that vases should be found in some parts of America, of the same composition with the Etruscan Urns, and with their very scrolls and ornaments; see *Archæologia*, vol. v. 318. These urns, in Thomas's *History of Printing*, are further said, like the Etruscan, to be only found in sepulchres.

## CHAPTER XV.

AFTER having thus examined and reviewed the most prominent parts of American institutions and arts, there yet remain several facts and circumstances to be noticed,—these subjects are too insignificant to merit a separate head, and we have therefore brought them all together in this last chapter.

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The Chinese, Hindoos, and Old Irish, have been by many authors complimented with the honour of having discovered the game of chess; but it appears that the original invention of this amusement is lost in the darkness of antiquity, for the Araucanians, a people of Chili, in South America, play chess, which has been known to them from time immemorial; they call it Comican.—(See *Hist. Chili*, vol. ii. 108, by Abbe Molina.)

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*The Game of the Flyers*, we notice in this place, as M. Denon in the plates to his *Travels in Egypt*, has given the copy of some figures taken from the

Egyptian hieroglyphicks, which have every appearance of a similar design with this Mexican amusement or ceremony.—The similarity of device will be best seen, by comparing the plate given by Clavigero, with the (lxiii. plate) of Denon's Atlas, &c.

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“The Intendancy of Oaxaca contains the walls of the palace of Mitla, which are decorated with Grecques, and labyrinths in Mosaic, of small porphyry stones. We perceive in them the same design, which we admire in the vases falsely called Tuscan, or in the frieze of the old temple of Deus Redicolus, near the grotto of the nymph Egeria at Rome.”—(*Humboldt's Polit. Essay*, ii. 155.)

“But what distinguishes the ruins of Mitla from all other remains of Mexican architecture, is six porphyry columns, which are placed in the midst of a vast hall, and supports the ceiling,—they have neither base nor capital.

“The distribution of the apartments of this singular edifice, bears a striking analogy to what has been remarked in the monuments of Upper Egypt, drawn by M. Denon, and the savans who compose the institute of Cairo.”—(*Ibid*, 157.)

Though pillars appear to have been very little used by the American Indians, yet there are other instances of their erection—as see the following :

“Between the hills of Mendoza and La Punta, upon a low range of hills, is a pillar of stone one hundred and fifty feet high, and twelve in diameter—it

has marks or inscriptions upon it resembling Chinese.”—(*Molina's Hist. Chili, i. notes 169.*)

This very much reminds us of the pillar and obelisks of ancient Egypt.

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I do not know how to account for the following superstition having such an universal credence.

“The ancient inhabitants of Europe, during eclipses of the moon, believed that it was occasioned by the attacks of a dragon who wished to devour her,—to prevent this misfortune they made great noises, and encouraged the moon to an effectual resistance;—the same belief, and the same superstitious practices, still exists in Japan, in China, Siam, India, Tartary, among the Curdes, Laplanders, the negroes who dwell on the banks of the Senegal, and in Peru.”—(*See Des Cultes Anterieur a L'Idolatrie, 273.*)

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The Mexicans had sacred animals, of whom they appear to have entertained a respect and veneration similar to that shewn by the ancient Egyptians;—by the following account it will be seen that the Mexicans embalmed and buried with care and respect, these quadruped deities.

In volume second of Humboldt's Researches, mention is made of the discovery of a tomb, filled with fine sand, and containing a well preserved skeleton of a carnivorous animal, which he thought was the coyote or Mexican wolf;—clay vases and small well

cast brass bells, were placed near the bones. The writers of the 16th century inform us, that the Mexicans erected small chapels to the wolf, the tiger, the eagle, and the snake.

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The following facts show a singular similarity to have once existed between the old and new world, and the great antiquity of the Indians or Aborigines of America.

There was a rock at Berkely Springs, Virginia, of several tons weight, which was so exactly balanced upon another, that a trifling force applied to it would cause it to vibrate, and yet a considerable power was incapable to remove it;—on the top, which would hold eight or ten persons, was a bason excavated.

This curious monument has been generally overlooked, and considered as a fortuitous arrangement of nature; but to those conversant with the antiquities of Great Britain, it must be evident that it is precisely similar to those Druidical monuments called Rocking Stones. The circumstance of a bason being excavated confirms the character of the rock, for thus are most of the rocking stones in England described.

Mr. Bryant says, “that wherever those monuments occur, we may esteem them of the highest antiquity. Such works are generally referred to the Celts and Druids; but they were the operations of a very remote age, probably before the time when the Druids and Celts were first known. There is reason to believe that these monuments and Stonehenge were erected

by one of the first colonies that ever arrived here," (England.)—(*See Bryant's Anal. vol. iii. 533.*)\*

I have seen an account of several similar rocking stones, in Kendall's travels through the northern parts of America; he very justly calls them the same as those in England.—(*See vol. ii. p. 49, of his Travels.*)

A gentleman, and relation, presented me with a phallus, or priapus, which was found in or near Chillicothe, Ohio; it is the only one I have ever heard of being found here. This stone figure is now in the Hall of the American Philosophical Society.

To this day, the phallus is worshipped in Hindostan, and was once an object of adoration generally over the world.† It adds another argument in favour of that ancient connexion of our Aborigines with the old continent, which we have so often mentioned in preceding pages.

\* Bryant also observes, that the Egyptians venerated rocking stones, that on some of these stones they merely placed an hieroglyphick, and others they shaped into different figures. (*Bryant's Analysis, iii. 531.*)

The Rock of Inti-guacu engraved with the figure of the sun, appears to be of this kind. (*See Humboldt's Researches, octavo, i. 247.*)

† Traces of the worship of Priapus was observed in the Sandwich Islands. (*See Cook's Voyage, vi. 2063.*)

## CONCLUDING REMARKS.

**I**T must be evident, from the analysis which we have just finished, that the Mexicans, &c. were not a rude and barbarously ignorant people, but on the contrary, that they possessed a very considerable degree of knowledge, not only of the arts, but also of some sciences. This knowledge they have correctly preserved through so many centuries, that the sources whence it was derived have long since been forgotten. It is, however, radically and positively the same with much of the learning of ancient Egypt, Hindostan, Chaldea, &c.; yet under these circumstances, we find the language and character of the American Indians, totally dissimilar to any nation or people whom history has preserved records of. The deduction from this is evident, namely, that this knowledge must have been obtained at that time, when all mankind used one language and had an equal opportunity of receiving information.

That the Mexicans and other Americans cannot be derived from any nation or people of the old world, is clear, else we should find them using the same cycles, years, months, emblems, deities, traditions, &c. We ought to find a pointed similarity in language, man-

ners, dress, &c. But can this be done? No;—analogies, similarities, or parallels, may be brought forward like we have done, which show a connexion to have existed once between the Aborigines of America and the nations of the old world; but in no manner can it be shown, that any nation of the globe has such an individual and unique resemblance to the Americans, as could induce us to believe them colonies, or emigrants from such a people: else would not learning, talent, and genius, have shown their origin, when the Egyptians, Hebrews, Phœnicians, Welsh, Norwegians, Tartars, and in short every nation of Europe or Asia, with few exceptions, have been supposed by different writers to have colonized America.

We find our Indians have very correct traditions of the flood and confusion of languages; but after this latter event, the chain which connected them with the old world is broken. Cush, Belus, Nimrod, and others, may be found in most of the mythologies of the old world when carefully analysed; but our Indians relate nothing of these mighty personages,—a proof of their very early separation from the old world, before the greatness of these men had spread over the different parts of the earth.

This antiquity of the Mexicans and other Americans, is apparent from all their institutions, rites, &c. being of the most ancient invention and discovery, as we have proved by the earliest writings of the old world, and from nations widely separated.

Now had they migrated much later than the time

we have supposed, we should find them using many inventions, &c. which have been known from great antiquity, to have existed in the old world.

Baron Humboldt has made an observation in his writings, which shews he entertained a similar opinion of the great antiquity of the South American people; and though he does not fix the date as we have done, yet his observations must, of necessity, resolve themselves into the very same period.

“It has been impossible hitherto to mark the epocha at which time there was a communication between the inhabitants of the old and new worlds, and it would be useless to attempt designating what particular people of the ancient world offer the greater number of analogies, with the Toltecas, the Azticas, (Mexicans,) the Muyscas, or the Peruvians, *since these similarities or resemblances are manifested in traditions, monuments and usages, which perhaps are antierior to the actual division of the Asiaticks into Mongols, Hindoos, Toungouse or Chinese.*”—(*Humbolt's Introd. to Mon of America.*)

Sir William Jones says, that the Hindoos, old Persians, Ethiopians, Egyptians, Phœnicians, Greeks, Tuscans, Scythians or Goths, Celts, Chinese, Japanese, and *Peruvians*, had an immemorial connexion with one another; and as there appears no reason for believing that they were a colony from any one of those nations, or any one of those nations from them, we may fairly conclude that they all proceeded from the same common central country.—(*See Asiat. Research. vol. i. p. 540.*)

Thus has this great and learned writer supported our hypothesis; and with his weighty opinion we conclude an essay which has in many other passages been entirely supported by the deserved greatness of his illustrious name.

## APPENDIX.

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### BRYANT'S OPINION ON PELEG.

IT was mentioned in a former part of this essay, that the celebrated Bryant had given an opinion as to the meaning of the verse relative to Peleg : see Gen. chap. x. ver. 25. *And unto Heber were born two sons; the name of one was Peleg, for in his days was the earth divided.* As the authority of his name is so deservedly great, his opinion will be here considered, in order to show that we have sacrificed nothing to theory ; and also, in what points his opinion appears to be faulty.

His belief is, that in Peleg's days mankind had been ordered by God to disperse and settle the different parts of the earth ; and that all but the children of Cush had obeyed this injunction. They, wishing to found a great and mighty kingdom among them-

selves, refused to obey that command ; and from fear of being scattered, they built the tower and city of Babel, as a mark or beacon ; and that then the Almighty, to oblige them to separate, confounded their language, and thus forced them to scatter through the earth : thus making the confusion of language, &c. only among the Cushites ; being of a partial and not a universal effect.

If, according to Mr. Bryant's supposition, the Ark rested on Mount Baris, and that in the country around it mankind settled after the deluge, and that from *that place* they were ordered to disperse over the world, most certainly the Cushites had fulfilled the command by going 1200 miles, which is about the distance from Mount Baris to Babel.

But there are greater objections to Mr. Bryant's opinion : for it is the earth which is said to have been divided in Peleg's days : nor has it any reference to man individually considered. The name or word Peleg, according to Mr. Bryant himself, means to *sever and divide*. Now in Peleg's days, he says that all mankind but the Cushites separated in obedience to the will of God. If so, how can we associate the strong forcible expression *sever and divide*, to a separation which he says was done in an obedient and peaceable manner.

This opinion of Mr. Bryant, though maintained by him with great erudition, has had very few defenders among latter writers. As to his opinion that the event related of Peleg took place before the confusion at

Shinar, it is, as we have formerly shown, most probable, that it did not take place until long after.

With respect to the confusion at Babel, it is sufficient to read the account in Genesis, to be satisfied that Mr. Bryant was incorrect in supposing it partial and confined to the Cushites.

The principal argument used by this celebrated writer is, that the Hebrew word *col aretz*, which is rendered *whole earth* in the history of the confusion, is frequently used *whole land* or *province*. This he thinks confirms his idea that the confusion of language was only among the Cushites, &c. That the confusion was partial and only in the land of Shinar, Moses gives us every reason so to believe; for all mankind were there assembled. But there does not appear in that narration, any ground for believing it partial in its influence on man.

## A REMARKABLE AVATAR.

**A**MONG the Avatars or Incarnations of Veshnu, the Hindoo preserver of the world, is the remarkable one of his descending from Heaven under the form of a tortoise, to support the earth labouring under some violent convulsion.

Mr. Hastings presented a book concerning the Avatars to the society of Antiquarians, where this the third one is designated, representing Veshnu's descent in the form of a tortoise *to support the Earth, sinking in the sea.* See vol. 1, Anc. Hist. Hind.

The explanation of this Avatar, given by the Hindoos, is, that the earth was assaulted by the evil genii and demons, who churned the ocean with a vast mountain, the effect of which is thus described in their extravagant mythology : “ The roaring of the ocean, whilst violently agitated with the whirling of the mountain, was like the bellowing of a mighty cloud ; thousands of the various productions of the waters were torn to pieces and confounded with the briny flood ; and every specifick being of the deep and all the inhabitants of the great abyss which is below the earth, were annihilated ; whilst from the violent agitation of the mountain, the forest trees were dashed

against each other and precipitated from their heights, with all the birds thereon, from the violent confraction of all which a *raging volcanick fire* was produced, involving the whole mountain in smoke and fire.—  
(*See vol. i. 569, Indian Antiq.*)

Mr. Maurice thinks this Avatar alludes to the universal deluge ; but perhaps there is more reason in connecting it with the submersion of land, as we have formerly discussed ; for the two preceding Avatars very accurately describe the Noachic flood and destruction of mankind all to seven or eight persons ; but, in this Avatar, the convulsion is partial and circumscribed. Also, the volcanick fires, confirming the account of earthquakes, &c. related by the Egyptian priest to Solon in his story of Atalantis, and their presence remarkable in many islands of the Atlantick, Pacifick and Indian oceans.

Major Wilford observes, that this story of the churning of the sea, “owes perhaps its origin to some strange convulsion of nature in that part of the world, (which he thinks was around the British Islands,) accompanied with dreadful storms, and some irruption of the sea ; in consequence of which, the shores of the cauldron-like sea, were strewed with the wrecks of nature, in that part of the country ; such as plants and trees, torn from the adjacent country, with large masses of amber and ambergris, which are only the coarser parts of the celestial amrit or ambrosia ; there are certainly obvious vestiges remaining of such a

dreadful catastrophe ; such as the Giant's Causeway, on the Irish coast, and other remains of volcanick convulsions on the adjacent shores of Scotland."—(*Asi. Researches*, xi. 140.)

THE tradition of the separation of England from France is mentioned in a manner so consonant to our theory, by the poet Collins, that I cannot forbear inserting the extract :

Beyond the measure vast of thought,  
 The works the wizzard time has wrought,  
 The Gaul, 'tis held of ancient story,  
   Saw Britain linked to his now adverse strand,  
 No sea between, nor cliff sublime and hoary,  
   He pass'd with unwet feet through all our land.  
 To the blown Baltic then they say,  
 The wild waves found another way  
 Where Orcas howls his wolfish mountains rounding,  
   Till all the banded west at once 'gan rise,  
 A wide wild storm e'en nature's self confounding,  
   Withering her giant sons with strange uncouth surprize.  
*This pillar'd earth, so firm and wide,*  
*By winds and inward labours torn,*  
*In thunders dread was push'd aside,*  
*And down the shouldering billows borne.*  
*And see like gems her laughing train,*  
*The little isles on every side, &c.*

Collins' Ode to Liberty.

## ON THE SEPTUAGINT.

**T**HE following extract from an introductory lecture of Thomas Cooper, Esq. delivered at Carlisle in 1812, fully answers my object in defending this version.

“Without adopting the fabulous account of Aristæus, and his seventy-two interpreters, it appears most likely, that the most authentick copy of the Jewish scriptures would have been furnished or sought out for the purpose of that version, whether undertaken at royal instigation or by private persons from private motives. It would naturally be the interest equally of the Jewish nation, and of the learned men of that day, that this should be the case.

“Neither does there seem to be any adequate assignable reason, why genealogical or chronological mutilations or interpolations should have passed without observation, under the circumstances of a version that must have attracted much notice at the time.

“The quotations out of the Old Testament, made not only by our Saviour and his apostles, but by the more ancient fathers also, are allowed to be from the Septuagint version or its original, being in many places conformable to this copy, and differing from the Hebrew text. I refer generally for proofs of this

to Pezron's *Antiquité de Tems Retablie* ; and the second chapter of Carponius, page 526, et seq.

“It is notorious that the Christians of the three first centuries, universally counted 5500 years from the creation to the birth of Christ. This is distinctly admitted by Joseph Scaliger, in his *Prolegomena in Chron. Eusebii*.

“The best qualified among the moderns as well as among the ancients, to judge of this question, have preferred this version, or the Samaritan. *Was not Josephus capable of adopting the most authentick chronology of his own country, himself a Jew?*

“And lastly, I confess myself prejudiced in favour of that copy, which harmonizes most easily with authenticated facts of profane history.”—(*See introductory lecture of Thomas Cooper, Esq. delivered at Carlisle, 1812.*)

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To this I will only add the two following authorities.

“The Babylonian and Jerusalem Talmuds, which contain the opinions of the most ancient Rabbis, give the highest commendation to the version of the Septuagint.—(*Jackson's Chron. Antiq. i. 82 et seq.*)

The book of the patriarch Enoch, which is as ancient as the christian era, at the least, gives its authority in favour of the Septuagint, by their dates agreeing. (*Jackson's Chron. Antiq. i. 59 to 63.*)

## ON THE SIMILARITIES THAT EXIST BETWEEN NATIONS.

AN attempt to explain the similarities existing among the different nations of the earth, has been made on the principle, "that men under similar circumstances will act similarly."—(*See Decline and Fall of the Roman Empire.*)—This theory sounds very well, but we see that men do not act thus in reality;—we find that all mankind want clothing, food, and comforts of various kinds;—now how will this principle account for the difference existing between nations; we find the Europeans well clothed, fed, and housed;—this improvement, or civilization, is said to have originated from their wants,—how is it, then, that the savages of Asia, Africa, and America, have not universally civilized themselves too? they have to this day the very same wants, they daily experience hunger, and privations of many different kinds.—O but it is said,—they, knowing no better, absolutely are ignorant that they are in want:—Well then, how did the Europeans first discover that they were in want of the comforts, which we find they now enjoy?

For my part, I believe, that unless man had been created civilized, he would never have risen to it by

his own exertions ;—we see, when left to ourselves, how degraded we are. Look at the Esquimaux, or New Hollanders ; these men have experienced wants for ages,—yet are they in the least improved ?—has an Ourang-Outang less comfort than an inhabitant of Terra Del Fuego ?—or is a beaver worse fed, or lodged, than a Kamtschadale ?——I think not.

## ON THE CALY YOUNG.

“**I**<sub>N</sub> the year 1687, when M. La Loubere returned from his embassy to the king of Siam, he brought along with him a Siamese manuscript, containing astronomical tables, and the method of employing them in calculating the places of the sun and moon. These tables were explained by the celebrated Cassini, who found that their epoch corresponds to the 21st of March, 638 of our era, and that they are founded on the supposition that the tropical year is 365 days, 5 hours, 50 minutes and 40 seconds, a determination which differs only 1 minute and 53 seconds from that employed in the new solar tables of Delambre.—These tables involve also the equation of the sun’s centre, the two chief equations of the moon, and the metonick cycle of 19 years.—Two other sets of astronomical tables, one from Chrishna-bouram, and the other from Narsapour, were sent to Paris by the missionaries in Hindostan; but they did not excite the notice of astronomers till M. Gentil returned from India, possessed of the new tables of Tirvalore, and instructed by the Brahmins in their methods of calculation. These precious remains of antiquity have been diligently examined and compar-

ed by the celebrated Mr. Bailli, in his *Traite de L'Astronomie Indienne et Orientale*, with that sagacity and eloquence which characterize all the writings of that illustrious, but unfortunate, astronomer.—He has found that the epoch of the Tirvalore tables coincides with the year 3102 before the christian era ; and has shewn, by a train of sound and convincing argument, that this epoch is not fictitious, but founded on real observations, which must have been made even before the commencement of the Caly Youg. These high pretensions to antiquity, which M. Bailli has claimed for the Indian astronomy, have been admitted by many distinguished philosophers, and have been recently defended by professor Playfair of Edinburgh, with an acuteness of reasoning, and a clearness of illustration peculiar to that eloquent writer.—On this subject, however, a difference of opinion still exists among astronomers. La Place has endeavoured to prove, though not with his usual success, that the epoch of 3102 was invented for the purpose of giving a common origin in the zodiack to all the motions of the heavenly bodies, and that the tables have either been constructed or corrected in modern times ; but he, at the same time, allows that the remarkable accuracy of the mean motions assumed in their construction, could have arisen only from very ancient observations.—Other astronomers, less candid than La Place, and less entitled to pronounce a decided opinion, have ascribed the astronomy of the Indians to the instructions which they received from Pythagoras,—while another class has maintained, that

astronomy was carried to India by the Arabs, about the middle of the ninth century;—the merits of these different opinions our readers will be able to appreciate from a general view of the reasoning employed by Bailli and professor Playfair.

If the epoch of 3102 is fictitious, and has been determined by calculation from observations of a modern date, the mean places of the sun and moon, assumed at that period, the inequalities in the motions of those luminaries, the obliquity of the ecliptick, the length of the tropical year, and the places of the fixed stars, must all differ from their real values, or those which would have been ascertained from actual observation; by quantities depending, in some measure, on the errors of the modern epoch, but chiefly on those minute variations arising from the theory of gravity, which the elements themselves have undergone, and which were discovered only towards the close of the 18th century. If we should therefore find, that all these elements as assumed at the epoch of 3102, are nearly the same as if they had been then determined by observation; or, as if they had been deduced from a modern epoch by calculations involving the acceleration of the moon, the variation in the precession of the equinoxes, the change of the obliquity of the ecliptick, &c.—we have only two alternatives, either to believe that the epoch of 3102 is real, and the Indian astronomy of high antiquity, or that the Brahmins at the period of the modern epoch, were completely acquainted with the theory of gravity, and with all the refinements of modern analysis.

From the delineation of the zodiack, for example, which La Gentil brought from India, it appears, that the star Aldebaran was 40 minutes before the vernal equinox in 3102; now if we take the precession of the equinoxes at  $50\frac{1}{2}$  seconds, and employ the inequality in the precession discovered by La Grange, we shall find by calculating from the place of Aldebaran in 1750, that in the year 3102, this star was 13 minutes beyond the vernal equinox, a result differing only 53 minutes from the Indian zodiack. But the force of this argument does not terminate here; even if the Brahmins had been acquainted with the inequality of precession, and had applied it to the modern epoch of 1491 B. C.—the 3 seconds of excess which they gave to the precession itself, would have produced an error of  $3'' \times \frac{3102 + 1491}{1} = 5^{\circ}, 49', 39''$ , at the epoch of 3102.

The mean longitude of the sun, according to the Brahmins at the epoch of the tables of Tirvalore, is 10 S.  $3^{\circ}, 38', 13''$ ; and according to the modern tables corrected by the inequality of precession discovered by La Grange, and amounting in the present case to  $1^{\circ}, 45', 22''$ , the longitude of that luminary is 10 S.  $2^{\circ}, 51', 19''$ , differing only about 47 minutes from the determination of the Indians. The longitude of the moon at the same epoch by the Tirvalore tables, is 10 S.  $6^{\circ}, 0'$ ; and the same computed from the tables of Mayer, and corrected by the moon's acceleration, is 10 S.  $6^{\circ}, 37'$ , a coincidence so remarkable that it could arise only from actual observation. Now if we compute the places of the sun

and moon at the commencement of the Caly Youg, from the tables of the Greek and Arabian astronomers, or from those of Ulugh-Beigh, which were constructed at Samarcand in 1437; we shall find, that the tables of Ptolomy give an error of  $11^{\circ}$  in the place of the sun and moon, while the tables of the Tartar prince produce an error of  $1^{\circ}, 30'$ , in the place of the sun, and of  $6^{\circ}$  in that of the moon. These results give additional strength to the former argument, and completely prove that the Indian astronomy is not the offspring of Greece or Arabia, and that the epochs of the Tirvalore tables were not deduced from modern observations. Arguments of a similar nature, and equally strong with the preceding, might be deduced from the obliquity of the ecliptick, the length of the solar year, the aphelion and mean motion of Jupiter, and the mean motion of Saturn, and the equation of his centre, as contained in the Indian tables;—for this information we must refer our readers to the writings of Bailli and professor Playfair.

From the general view which we have now given of the astronomy of the ancients, the mind is necessarily led to the conclusion which Bailli has drawn, that the rules and facts of the Egyptian, Chaldean, Indian, and Chinese astronomy, are the wrecks of a great system of astronomical science, which has been carried to a high perfection in the early ages of the world.—After those mighty revolutions in human affairs, amid which the principles of the science have been lost,—the study of astronomy seems to have

revived about the year 3102, when the loose materials which time had spared, were carefully collected and diffused through the different kingdoms of Asia. Hence the striking connexion that subsists between the various systems which prevailed among the eastern nations, and hence the numerous fragments of the science which have been transmitted to the present day.

In examining these wrecks of the human mind, we every where find methods of calculation without the principles on which they are founded ;—rules blindly followed, without being understood ;—phenomena without their explanation, and elements carefully determined, while others more important, and equally obvious, are altogether unknown. We cannot, therefore, regard these unconnected facts, as the highest efforts of the ancients in the science of astronomy, or as results which they have reached without the light of theory, or without the aid of long continued observation. When the traveller contemplates the remains of ancient cities, and examines the broken statues, the shafts, and capitals, and pediments, which are dug from their ruins ; does he consider these fragments as the highest effort of the sculptor, and the architect, in the arts which they cultivated ? Does he not rather turn in imagination to the columns, and statues, which they composed—to the temple, which they supported or adorned, and to the living being which worshipped within its walls ?

Whatever objections may be urged against these opinions, let it not be said that they are inconsistent

with the truths of revealed religion. The sacred scriptures are not to be affected by any variations in chronological dates, or by any opinions, however extravagant, respecting the age of the world; and surely those men are the greatest enemies of their faith, who fix it on such a slender basis. It is as foreign from the object of revelation to instruct us in chronology and astronomy, as it is from that of science to teach us how we should act, and what we should believe. The speculations of philosophy, will not be confined within the limits of vulgar theory, nor will the human mind suffer itself to be chained down from its noble flight. The attempts which have been made to check its progress, are, we hope, the last efforts of expiring bigotry; and we trust the hazardous experiment will never be repeated among a civilized people, of attempting to raise an altar to their God, upon the ruins of the temple of science."

The foregoing elegant dissertation has been extracted from the article Astronomy, of the Edinburgh Encyclopædia, and appears to completely establish the epoch of the Caly Young, being derived from actual observation; the limits of the article, prevent the detail of the other proofs, equally strong and conclusive. The inquisitive reader, however, may see the arguments of professor Playfair, at length, in the second volume of the Edinburgh Transactions.

A very decided opposition to this epoch of the Caly Young, has arisen—with some persons from the belief, that it opposes the Books of Moses. This ob-

jection, though hardly deserving consideration, is easily shewn to be very futile.

The fact is, that the whole controversy has proceeded from the defective chronology, which the clergy have chose to support, namely, the system of Archbishop Usher, which is founded on the Hebrew computation. The Septuagint chronology, supported by so many arguments, and by the opinion of almost every antiquarian and historian of real learning, solves the difficulty completely.

The next source of error is, from believing and upholding the idea, that the first postdeluvian ages were ignorant and barbarous. This error we hope we have demonstrated in Chap. VII. of this work.

The third cause of error arises from not considering the very great effect, that the confusion of speech, and dispersion from Babel, would have upon mankind; an event which on the least consideration, would shew the reason for the ignorance and barbarity, which the first postdeluvian history inform us was the state of the world.

If to these arguments are added the great catastrophe of dividing the world, and the formation of islands, the imperfect communications between nations, such as we have advanced in this essay, there cannot be a single circumstance in the remarks made by Bailli and Playfair, irreconcilable to the Pentateuch. To exhibit this, I shall add the following chronological table.

## CHRONOLOGY OF THE SEPTUAGINT, ACCORDING TO JACKSON.

A. M.	B. C.	
1	5425	Creation of Man.
2257	3169	DELUGE.
2324	3102	<i>Era of the Caly Youg.</i>
2803	2623	Dispersion from BABEL.
3103	2323	Division of the Earth in Peleg's days.
3329	2097	Birth of Abraham, &c. &c.

Among other objections made to the Caly Youg, is the following one, used by Dr. Marsden and Mr. Bentley :—That there could not have been, at the moment indicated by the tables of Tirvalore, a conjunction of all the planets ; for there was no less than  $73^{\circ}$ , at that time, between the places of Venus and Mercury ; which is not compensated by shewing, that when the Sun and Moon were in opposition, 15 days after, all the planets but Venus, being comprehended in the space of  $17^{\circ}$ , might be visible : this argument is also confirmed by La Place. The learned Judge Cooper, in his Introductory Lecture, observes : that the expression of the Tables is general ; that there was a conjunction of the planets, without saying of all of them.

In the course of reading, I have met with an extraordinary narration ; which, perhaps, may be sufficient to prove, that Venus was in conjunction, at the era of the Caly Youg. No collusion can be suspected ; and the tradition most exactly explains the difficulty.

“ Est in Marci Varronis-libris, quorum inscriptio est, De gente populi Romani, quod eisdem verbis, quibus ibi legitur, and hic ponam : In cœlo, inquit, mirabile extitit portentum : nam in stella Veneris nobilissima, quam Plautus Vesperuginem Homerus Hesperon appellat, pulcherrimam dicens, Castor scribit tantum portentum extitisse ut mutaret colorem, magnitudinem, figuram *cursum* ; quod factum ita neque antea, neque postea sit. Hoc factum Ogyge rege dicebant Adrastus Cyzicenus & Dion Neapolites, mathematici nobiles.—( *St. Augustin, Civit : Dei. Lib. 21. cap. viii.*

Mr. Gibbon remarks, in his history of the *Decline and Fall of the Roman Empire*, that this story of Venus, changing her orbit, is erroneous; and that a comet, moving in that part of the heavens, has mislead the observer, and gave rise to the tradition, that the planet Venus had exhibited such appearances; he was convinced of this by the arguments of M. Freret, in the *Memoires of L'Academie des Inscriptions*; which I suppose is, by an error of the printer, incorrectly quoted, as I could not find the communication; hence, I am unaware of the arguments that may have convinced Mr. Gibbon. But it seems very extraordinary, how any one could mistake a comet for the planet Venus, the most remarkable of our planets, and utterly unlike a comet. Such a mistake appears impossible.\*

\* If etymology be allowed as argument, we may, perhaps, infer the truth of St. Augustine's tradition from that source. According to Costard, see his *Astronomy*, 196 :—"Aphrodite, the Greek name of the

As to the argument that such a phenomenon is anomalous, it may be doubted whether that is a fact ;— We know that fixed stars have sometimes shone with extraordinary lustre for many months, and then to have disappeared ; such as the one in Cassiopea, in the year 1572, and the one discovered by Kepler, in Serpentarius, in 1604. A considerable number of fixed stars have disappeared altogether.\*

Nor is our own solar system without certain histories that may tend to countenance this phenomenon. The history of Joshua, and the dial of Ahaz, are familiar to every one.

The theory of Dr. Oelbers, respecting the planets, between Mars and Jupiter, bears every appearance of being correct and true ; and is, I believe, pretty generally approved of by astronomers. All these circumstances, taken together, certainly shew that there is nothing improbable in the tradition,—related along with the names of *mathematicians*, by St. Augustine.

planet Venus, is derived from the Chaldeac word *pharad*, separavit ; disjunct ; and signifies separata in general ; whether on account of lustre, beauty, *or any thing else*."

\* Dr. Herschel enumerates no less than thirteen.

## ON THE ANTIQUITIES OF THE WESTERN COUNTRY.

**P**REVIOUS to closing our Essay, it appears proper to touch upon a subject of some interest, which darkly glimmers amid the obscurity of those ages, which preceded the discovery of America by the Europeans.

There exists in the Western States of the Union, many traces of a people imperfectly civilized, who have been, by some of those revolutions to which human affairs are so liable, swept from the stage, leaving us ignorant of their misfortunes and name.

The monuments and remains of their labours, which have resisted the hand of time, are chiefly found in the great valleys along the Ohio and Mississippi, in one of the most beautiful and fertile parts of America.

The most striking of these antiquities are, the pyramids, the fortifications, and the mounds; which we shall briefly describe, and proceed to examine the question,—What people erected them?

The most accurate and interesting account of the pyramids, may be seen in Mr. Brackenridge's Views of Louisiana;—from which I have extracted the following recital.

“ I crossed the Mississippi at St. Louis,” says Mr. B., “ and after passing through the wood which borders the river, about half a mile in breadth, entered an extensive open plain. In fifteen minutes I found myself in the midst of a group of mounds, mostly of a circular shape, and at a distance resembling enormous haycocks, scattered through a meadow. One of the largest, which I ascended, was about two hundred paces in circumference at the bottom, the form nearly square, though it had evidently undergone considerable alteration from the washing of the rains; the top was level, with an area sufficient to contain several hundred men.

From the top of this mound I counted twenty mounds or pyramids, besides a great number of small artificial elevations ; these mounds form something more than a semicircle, about a mile in extent; its diameter formed by the river.

Pursuing my walk along the Cohokia, I passed eight others, in the distance of three miles, before I arrived at the principal assemblage. When I reached the foot of the largest mound, I was struck with the degree of astonishment not unlike that which is experienced in contemplating the Egyptian pyramids; and could not help exclaiming, what a stupendous pile of earth. To heap up such a mass must have required years, and the labours of thousands. It stands immediately on the bank of the Cohokia, and on the side next it, is covered with lofty trees. Were it not for the regularity and design which it manifests, the circumstance of its being an alluvial ground, and the

other mounds scattered around it, we could scarcely believe it the work of human hands, in a country which we generally believe never to have been inhabited by any but a few lazy Indians. The shape is that of a parallelogram, standing from north to south; on the south side, there is a broad apron or step, about half way down, and from this another projection into the plain about fifteen feet wide, which was probably intended as an ascent to the mound. By stepping round the base I computed the circumference to be at least six hundred yards, and the height of the mound about ninety feet. The step or apron has been used as a kitchen garden by the monks of La Trappe, and the top is sowed with wheat. Nearly west is one of smaller size, and fifteen others scattered through the plain—two are also seen on the bluffs at the distance of three miles. Several of these mounds are almost conical. As the sward had been burnt, the earth was perfectly naked, and I could trace with ease any unevenness of surface, so as to discover whether it was artificial or accidental. I everywhere observed a great number of small elevations of earth, to the height of a few feet, at regular distances from each other, and which appeared to observe some order. Near them I also observed pieces of flint and fragments of earthen vessels.

I was perfectly satisfied, that here once existed a city similar to those of Mexico, described by the first conquerors. Although it might not have been a Lycopolis, Persepolis, or Thebes, it is not improbable that it contained many thousand inhabitants. This

plain, now reposing in the stillness of death, was once the scene of a busy and crowded population ; those temples, now devoted to the idolaters of silence, once resounded with shouts of war or songs of peace. The mounds, were sites of temples, or monuments to the great men. It is evident, this could never have been the work of thinly scattered tribes. If the human species had any time been permitted in this country to have increased freely, and there is every probability of the fact, it must, as in Mexico, have become astonishingly numerous. The same space of ground would have sufficed to maintain fifty times the number of the present inhabitants with ease ; their agriculture having no other object than mere sustenance. Amongst a numerous population, the power of the chief must necessarily be more absolute ; and where there are no laws, degenerate into despotism. This was the case in Mexico, and in the nations of South America ; a great number of individuals were at the disposal of the chief, who treated them little better than slaves. Hence, there would not be wanting a sufficient number of hands to erect mounds or pyramids.

Hunter and Dunbar, describe a mound at the junction of the Catahoula, Washita and Tensa rivers, very similar in shape to the large one on the Cohokia. This I have also visited. It has a step, or apron, and is surrounded by a group of ten or twelve other mounds of a smaller size. In the vicinity of New Madrid, there are a number. One on the bank of a lake, is at least four hundred yards in circumference,

and surrounded by a ditch at least ten feet wide, and at present five feet deep; it is about forty feet in height, and level on the top. I have frequently examined the mounds at St. Louis; they are situated on the second bank, just above the town, and disposed in a singular manner; they are nine in all, and form three sides of a parallelogram; the open side towards the country, being protected, however, by three smaller mounds, placed in a circular manner. The space enclosed, is about four hundred yards in length, and two hundred in breadth. About six hundred yards above, there is a single mound, with a broad stage, on the river side; it is thirty feet in height, and one hundred and fifty in length; the top is a mere ridge, of five or six feet wide. Below the first mounds, there is a curious work called the Falling Garden. Advantage is taken of the second bank, nearly fifty feet in height at this place, and three regular stages or steps, are formed by earth brought from a distance. This work is much admired; it suggests the idea of a place of assembly, for the purpose of counselling, on publick occasions."—(*See Brackenridges' Views of Louisiana, 173.*)

The Fortifications are extensive lines of ramparts, generally irregular; bending in various directions, either to enclose a spring, or take the bend of a river or hill. These works rarely have a ditch, and there are no appearances of towers, bastions, or glacis, con-

nected with them. In some instances, these works are square, or circular, and very regularly laid out.\*

Up the river Miami is a very strong fortification; the walls of which, are from ten and twelve, to eighteen feet in height. In this work, are many salient and re-entering angles; the area of the whole enclosure is almost one hundred acres. From this work, runs two roads or elevations, sixteen feet in width, and three in height; they are nearly parallel for a quarter of a mile, when they diverge, but at length unite on the further side of a small and irregular mound.

The walls of these fortifications are generally made of earth, though in many other instances they are constructed of rough stones, put together without mortar. In some instances, this kind of wall have extended a mile and a half.—(*See Dr. Drake's Picture of Cincinnati.*)

Dr. Drake also mentions the discovery of a road, which can be traced for two miles. This road is at present from one to two feet high; its width appears to have varied from twenty to thirty feet; its surface is convex. In several places, strata of limestone and pebbles have been discovered, but in other parts it seems to be composed of earth only.

We are now to speak of the Barrows or Tumuli, which are only mounds on a small scale. I agree with Dr. Drake and Mr. Brackenridge, that these

\* Baron Humboldt has remarked, that the fortifications of America, resemble those found in Eastern Asia. Similar works are found in Great Britain, and are evidently of great antiquity.

erections are generally the burying places of distinguished men, and sometimes of families ; some others, however, such as the one described by Mr. Jefferson, in his Notes on Virginia, presents the appearance of having been the general place of interment to a village.

A line of distinction must be drawn between these barrows or tumuli, and the pyramids, and fortifications ; for whilst the latter are peculiar to one district of country, the tumuli may be found in every other part of America.\*

However imperfect and unskilful the works which we have just described may appear, they still are much superiour to any thing which we know the Indians around to have ever attempted ; and a very slight view must satisfy us, that these works owe their erection to the combined exertions of a numerous and organized population ; a state of society altogether incompatible with the habits of any of the Indian nations, with whom we are acquainted. And these remains, found only in one district, seems to point them out as the production of nation or people.

\* And in fact all over the world.—The mounds on the plain of Troy are of this kind. They are also found in Eastern Asia—and even among the natives of Southern Africa.

Similar mounds are common in Ireland, see *Archæologia*, vol. xvi. p. 268: "It is still the custom there with the natives, in passing such a place, to cast thereon a stone, to increase the monumental pile, which is obviously the remains of a very ancient custom ; at the time of throwing this stone, the pious passenger, bareheaded, repeats a prayer for the repose of the soul of the dead."

The ceremonies observed by the Irish, &c. are individually the same with those of our Indians.

On digging in the ground, in the neighbourhood of these monuments, are found pieces of pottery of various shapes ; this species of manufacture appears to have been formed out of pounded shells and clay, and then subjected to a strong heat ; but there are no appearances of glazing upon any of these vessels. The Indians around are unacquainted with this manufacture, though Dr. Drake thinks it is known to some of the Indians of Louisiana.

But a decided proof of civilization superiour to our Indians, may be derived from the fact ; that among these ruins, are found pieces of copper, beat out into thin sheets, and cut into various shapes ; copper beads have been found—and other metalick figures, whose use and purpose seem to defy conjecture. Had any of our Indians possessed the art of rendering copper malleable, it can hardly be supposed that they would forget, or lay aside an art, which rendered their wars or hunting so efficient ; for the tedious preparation, and imperfect substitution of flint.\*

\* Great scepticism should be entertained respecting newspaper accounts of antiquities and curiosities, found in America. I have seen relations of coins having been found in Ohio, engraved with *unknown characters*, and yet having the year expressed by Arabian figures.

In the same manner much curiosity has been excited by the discovery of glass beads, in certain parts of the United States, and under circumstances which almost preclude the belief of their being European manufactures. Some persons have, from these circumstances, hastily supposed that the ancient inhabitants of America manufactured glass. But it is well known to mineralogists, that glass is a natural production, and is not very uncommon. Obsidian, or volcanick glass, known to the Mexicans by the name of *Itzli*, was much used by several American nations ; and beads, mirrors and bracelets, formed from it. Baron Humboldt, has given a plate of some Mexican ornaments, of Obsidian.

Chrystalized quartz, also approaches so nearly to glass, that few but mineralogists could distinguish the difference.

It is much to be regretted, that so little exertion has been made by our countrymen to investigate these curious antiquities. The few specimens that are seen, are only such as chance and accident have thrown in the way ; and even when thus brought to light, the ignorance or carelessness of the possessors, either wantonly destroy, or suffer these interesting curiosities to be lost.

Rude and ungraceful as these ruins are, they nevertheless excite our sympathy, and that concern which arises in every feeling mind, on viewing the overthrow of human labours or institutions.

When we contemplate the ruins of Ilium, of Carthage, or of Palmyra, amid all our regret and concern for their fate, yet there are incidents connected with their histories which we reflect on with enthusiasm. Though they have fallen, their fame yet lives. The genius and talents of antiquity still shine with original splendour, and the triumph of time and desolation, over the labours of man, is incomplete.

Nec, si quid olim lusit Anacreon  
Delevit ætas. Spirat adhuc amor,  
Vivuntque commissi calores  
Æolia fidibus puellæ.

But with the mounds and fortifications of America, we have no agreeable, no inspiring associations. We see "The bones of men in some forgotten battle slain,"—we see the labours of their hands desolated,

—their rude works overgrown by the trees of the forest;—whilst the nation that raised these works, together with her patriots and her heroes, has disappeared, and has not left even a name behind. And the last and only remembrance of them which has reached our time, has been only preserved by a recollection of their ruin and extermination, and the terrible effusion of their blood.

Until very lately, it was believed, that the Indians in the neighbourhood of these remains, were entirely ignorant of the erectors of these works—and which they almost universally referred to an age antierior to their earliest traditions. Fortunately, however, some gentlemen of curiosity have attended to this subject—scarcely in time; but who have preserved some traditions which throw a light upon the dark inquiry;—and by means of which, we may be able to pierce the mysteries which shroud other, and equally interesting subjects.

These important traditions have been extracted from the *PORT FOLIO*, of Philadelphia; and were originally taken from some manuscripts in the possession of the editor of that periodical work;—they are as follows:

“Mr. Thomas Bodely was informed by Indians of different tribes, north west of the Ohio, that they had understood from their old men, and that it had been a tradition among their several nations, that Kentucky had been settled by *whites*, and that they had been exterminated by war. They were of opinion that the old fortifications now to be seen in Kentucky

and Ohio, were the productions of those white inhabitants. Wappockanita, a Shawnee chief, near a hundred and twenty years old, living on the Anglase river, confirmed the above tradition.

An old Indian, in conversation with Colonel Jas. F. Moore, of Kentucky, informed him, that the western country, and particularly Kentucky, had once been inhabited by *white people*, but that they were exterminated by the Indians. That the last battle was fought at the Falls of Ohio, and that the Indians succeeded in driving the Aborigines into a small island (Sandy Island,) below the rapids, where the whole of them were cut to pieces.

The Indian chief called *Tobacco*, told Gen. Clark, of Louisville, that the battle of Sandy Island, decided finally the fall of Kentucky, with its ancient inhabitants. Kentuckee, in the Indian language, signifies the *River of Blood*. Bancroft Library

Colonel Joseph Davis, when at St. Louis in 1800, saw the remains of an ancient tribe of the Sacs, who expressed some astonishment that any person should live in Kentucky;—they said the country had been the scene of much blood, and was filled with the manes of its butchered inhabitants. They stated also, that the people who inhabited this country were *whites*, and possessed such arts as were unknown to the Indians.

Colonel M'Kee, who commanded on the Kenhawa when *Cornstalk* was inhumanly murdered, had frequent conversation with that chief, respecting the people who had constructed the ancient forts. He

stated, that it was a current and assured tradition among the Indians, that Ohio and Kentucky had been once settled by *white people*; who were possessed of arts which the Indians did not know, and that after many sanguinary contests they were exterminated.—(*Port Folio*, number for June, 1816.)

From these traditions, and from the testimony of three South American nations, who ascribe their civilization and religion to three *white men*, whom we shall presently notice, it appears very reasonable to believe, that a race of white men, imperfectly civilized, were the centre from whence the civilization, observable in America, has emanated;—and to this population must we refer the pyramids and fortifications of the Western country.\*

It can be but little more than guess work to state more of this aboriginal white people—for the few scattered, unconnected facts and circumstances that remain concerning them, can only serve to give a tolerable plausibility to what we will say on this subject.

How great, or how extended their population may have been, is impossible to tell;—perhaps we may with safety say, that *their influence* pervaded all that country where we find the fortifications and pyra-

\* We have already shewn, (in page 52) that white men are found in several parts of America, who have never had any connexion with Europeans. Bearded men may be seen among the ancient Mexican figures and hieroglyphicks—as see Humboldt's *Atlas Pittoresque Planches*, 21, 47, and 48.

mids\*, and which, I am disposed to believe, embraced several of the copper coloured tribes also.

A cruel and bloody war appears to have taken place between the rude and barbarous natives, perhaps under some Attila or Genseric, and their more refined and civilized neighbours, which ended nearly in the total destruction of the latter. The few that survived this catastrophe, fled their country, and sought happier and more peaceful climes. The Toltecas and Mexicans, copper coloured people, who appear to owe the knowledge and refinement they possessed to these aboriginal whites, avoided a cruel fate in this manner, though they appear to have also suffered before leaving their original country.

The arguments supporting the opinion, that the Western States of the Union were the original countries of the Mexicans and Toltecas, may perhaps be plausibly demonstrated †, and under the peculiar circumstances of the bloody war which we have just mentioned, may be found the reasons that enforced their migration.

Referring to the accounts we have given from Clavigero, of the arrival and history of the Mexicans, &c. page 90, we will find these nations stating, they

\* I am not able to state the exact extent of country over which these remains are found. They appear from a short distance above Pittsburg, to some height up the Missouri, but are found especially on the borders of the Ohio and Mississippi; and only extend a few miles, perhaps not more than 30 or 40 from their banks.

† This is an old opinion, and has been supported by many writers. Charles Cullen, Esq. Translator of the Abbe Clavigero's History of Mexico, is the first one, I know of, who published the opinion.

were forced to leave their original country Huehuetapallan, which they said was *north from Mexico*. They do not state why they were forced, or on what account; they simply say, they were *banished*. It must strike every one who considers this subject, that the cause which could force so many different tribes or people from their native country, could have been nothing of a very common kind; and nothing that I can see, agrees in so many points as the opinion we have just given, as to this cause.

It can be also shewn, that the works and labours of the Mexicans, bear striking analogies to the ruins found along the Mississippi and Ohio. The pyramids of Anahuac, and temples of Mexico, are decidedly of the same style, design and arrangement, with the ancient remains.\* The Mexicans also raised places of defence similar to the ancient fortifications; this may be seen in Clavigero, ii. 389; and this is also evident by the account given by Cortez, of the conquest of Mexico.

Clavigero has given a drawing of the defence to the Tlascalan territories, not materially different from the figure of one given in the *Columbian Magazine*, iii. and fig. 1st. which is situated on the Huron river.

From some human bodies found in the western country, there appears considerable reason to think the Mexicans once lived there.

These bodies were found in a copperas cave, near the Cany Fork of Cumberland river, Ten. See Me-

\* Compare Mr. Brackenridge's narration, page 203, with the note at the foot of page 133.

dical Repository, vol. iii. Hexade, iii. p. 147. One of these bodies was a male, the other a female ; they were buried separately, and according to the Medical Repository, in the following manner : The male had on a fine linen shirt ; and then, five dressed deer skins were closely wrapped around the body, then a twilled blanket, and a cane mat sixty feet long. The body of the female lay three feet from the male, and in the same position ; she was enveloped in two undressed deer skins, under which, upon the face, was found a small cane mat ; then four dressed deer skins were wrapped around, over which was folded a cane mat, long enough to cover the whole ; then were five sheets wrapped round, supposed to have been made of nettle lint, wrought very curiously along the edges with feathers, of various kinds and colours ; two feather fans were found next, upon the breast : the body, with all the wrappings, was found on what was believed to be a hair trunk or box, with a cane cover ; which was wound up in two well dressed deer skins of the largest size ; and the whole girted with straps.

This account is very loose and undeterminate ; and the language of the gentleman who wrote it would lead us to suppose, that the fine linen shirt and twilled blanket were of European manufacture ; but this is not the case ; what is called a shirt is only something like one, and so also the twilled blankets are totally dissimilar to any thing made in Europe or the United States.

This correction to the statement given in the Medical Repository, I am entitled to do, from the infor-

mation given me by a gentleman who saw the bodies and their envelops, &c. and who deposited an arm and specimens of the mats, feathers, &c. found with them in Peale's Museum, Philadelphia, where I have seen them. Another important circumstance incorrectly stated in the Medical Repository is, that the legs were cut off and laid upon the belly; the fact is, that they were only bent up, perhaps not more than is done when we ourselves sit on a low seat.

The manufactured mats, &c. around these bodies, agree very well with those of the Mexicans, &c. thus Clavigero: "The Mexicans made of cotton, large webs, as delicate and fine as those of Holland; they wove these cloths with different figures and colours; they interwove feathers with cotton, &c.; from the leaves of two species of plants they obtained a fine thread, of which they made cloths equal to those made of lint" (flax.)—(*See Clavigero, vol. ii. 425.*)

By this extract, it appears that the wrappings found around these bodies are very similar to the manufactures of the Mexicans and other nations first found in Anahuac. And the singular flexure of the knees over the belly, may be owing to their having been buried in a sitting position, which was a Mexican ceremony.

The feather fans were a badge of nobility among the people of Mexico and Anahuac generally.

In a work entitled *Nature and Art*, edited by Dr. Mease, of Philadelphia, is a circumstance related which perhaps strengthens this opinion, that our western country was once the seat of the Mexicans, Toltecas, &c. A mound in or near the town of Tom-

linson, in Ohio, was opened, and among many bones and stone tools, was found a kind of stone signet, of an oval shape, two inches in length, with a figure in relieve resembling the note of admiration, (!) surrounded by two raised rims. A captain Wilson, who was present, observed that it was exactly the figure of the brand with which the Mexican horses were marked, &c.—(*See Nature and Art, vol. xiv. 199.*)

I have also been informed, that our late president, Jefferson, has in his possession many masks, &c. made of baked clay, and which were found in different parts of the western country. This circumstance also coincides with the habit of the Mexicans; see our notice of burial. In the *Archæologia*, vol. vi. 107, a Mr. Charles Rogers, mentions a great number of similar masks being found on the Musquito shore. He was told by his Indian guides, that they were likenesses of chiefs.

We come now to speak of those three extraordinary persons—Quetzalcoatl, Inca-mancu Capac, and Bochica;—men who appeared on a sudden, with white skins, long beards, and flowing garments.—From what has been already said of the ancient white aborigines of America, it will be at once perceived, that their origin may be very reasonably referred to that source; and their appearance among the nations, may be described to the ruin of their country, which forced them to emigrate.

It was between the years 544 and 648 of our era, that the Toltecs emigrated from the North, and arrived in Anahuac. During this time, or as Baron Hum-

boldt observes—perhaps antierior to that age, Quetzalcoatl made his appearance ; a white man, bearded, and accompanied by other strangers, who wore black garments, in the form of cassocks. He came a kind of missionary and lawgiver to the Toltecas, and greatly civilized them.

It appears to me, that there are two personages blended under the name of Quetzalcoatl; one may with great probability, be referred to the god of that name, who we have described in page 120, and whose history affords strong analogies with that of the Patriarch Noah. The other Quetzalcoatl, was, I think, a priest from the white Americans ; and who, perhaps, was a priest of the god Quetzalcoatl ; he appears to have arrived among the Toltecs about the times we have stated. In a like manner, is the god Wooden or Odin, confounded with the hero or priest Odin ; and history, in other places, offers analagous illustrations.

Bochica, who appeared to the Muyscas, and Mancu Capac, the first Inca, and instructor of the Peruvians, also were white, and bearded men. They appeared on a sudden to these South American people, as ministers from Heaven. It is my opinion, that these two personages, were priests of the white Americans, who were fortunate enough to escape the ruin and desolation of their country, and to reach South America ; where, by superiour knowledge, and usual artifices, they acquired an influence over the minds of the

Peruvians and Muyscas ; which, perhaps, was beneficial to those nations.\*

I do not know how far we ought to depend upon the traditionary chronologies which are given, as to the appearance of these lawgivers of America. According to the Mexicans, Quetzalcoatl appeared to the Toltecas, either about the five hundred and fortieth year of the christian era, or in the ages anterior ; and whilst the Mexicans were living in Huehuetapalan.

There are no particular accounts given of the time Bochica first made his appearance to the Muyscas.

I must acknowledge, previous to concluding this inquiry, that I am not satisfied in every point with my conjectures upon these American antiquities. Indeed, the credulity of any one must be uncommonly great, who could believe, he had thoroughly investigated and explained such ancient and mysterious difficulties. We are without records, or traditions, or in fact any other help than a plausible theory ; and other theories may perhaps explain and reconcile the difficulties under which the subject lies, just as well ; and I am afraid,

\* There are some difficulties involved in the opinion, that Mancu Capac, Quetzalcoatl, and Bochica, were of the same nation of whites—as the religions and policy of these lawgivers, were different. These difficulties, however, may be reconciled, by supposing some sectarian differences to have existed among the white Americans ; which may have been further altered by the crafty policy of the priests, to suit the genius of the different nations they afterwards civilized.

The Seevites and Bhuddists of India, offer a good illustration to the sectarian differences, I have supposed may have existed among the whites of America ; and which may be supposed to be exemplified by the religions of Mexico and Peru.

that all the light which will be ever thrown upon the subject, will be through the uncertain medium of conjecture. -

I am induced to make these observations, among many other reasons, by finding that Garcilazo de la Vega relates—enormous stone buildings, pyramids, and gigantick stone statues, are found on the frontiers of Peru—whose founders or builders were unknown.

Perhaps it would be carrying our theory too far, to attribute these last works to the ancient whites of America, or to the Toltecas ; all that can be said, is, that such an opinion is not attended with impossible circumstances. Time, philosophical research and examination, may perhaps give us a knowledge of these remains ; but at present we must be silent, and leave them in almost cimerian darkness.

**FINIS.**



